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COURSE OF LECTURES
ON THE
DISEASES OF THE EYE,
Delivered in 1840,
AT THE
ROYAL SCHOOL OF ANATOMY AND MEDICINE,
MANCHESTER,
By JOHN WALKER, Esq., Surgeon.
(Second Division.)

LECTURE X.

Cancer Oculi.

ANOTHER malignant affection to which the eye is occasionally subject is cancer. Scirrhus or cancerous degeneration of the eyeball, is usually met with in persons of a somewhat advanced age; and females are said to be more obnoxious to it than males. Instead of the softened and medullary consistence observed in melanosis and fungus hæmatodes, the structures affected with cancer are of a firm, cartilaginous, and fibrous nature. Previous to an eye being affected with scirrhus, it is usual for it to have been frequently the seat of inflammation; these attacks will probably have produced an opake condition of the cornea, more or less disorganisation of the globe, and loss of vision: and the sclerotica will likewise be found to exhibit an unhealthy aspect, having a yellowish hue, with its vessels varicose and enlarged. During the progress of this affection, there is generally severe lancinating pain in the eye experienced, as well as lachrymation, and the other usual symptoms of irritation of the visual organ. As the disease advances, the eyeball shrinks, and becomes indurated; the pain extends to the head; the patient obtains little or no sleep; his appetite is lost; and he becomes gradually emaciated. The diseased action spreads to the conjunctiva, palpebræ, and the various textures surrounding the orbit: these parts become inflamed and indurated; ulceration and sloughing succeed, with profuse discharge of a thin, acrid matter; and the long-continued irritation, restlessness, and anxiety finally destroy life.

Such is the usual progress of cancer, when it commences in the globe of the eye. More commonly, however, the eyelids, or the textures surrounding the orbit, are first attacked, and the disease subsequently extends to some portion of the eyeball. The progress is seldom rapid, but, on the contrary, many months, or even years, may elapse before its termination.

In the treatment of scirrhus of the eyeball, we have to consider whether the disease be confined to the organ itself, or whether the eyelids or the different textures and glands in the vicinity are similarly affected. If the eyeball alone be the seat of the disease, then it is possible that its removal may be followed by perfect recovery. But unfortunately, as in the case of fungus hæmatodes and melanosis, such an operation is usually of but temporary benefit, for the disease is almost sure to return, either in the orbit or some other part of the system; and, as respects medicine, it is clearly established that no one article of the materia medica possesses the smallest virtue in arresting its progress. Under these circumstances there is but little encouragement to resort to the knife, and probably nothing but palliative treatment will, in the vast majority of cases, be applicable. The internal exhibition of opium, or some other narcotic substance, becomes necessary to relieve the sufferings of the patient. The liquor opii sedativus is an excellent local application in the more advanced stage: two or three drachms to an ounce of distilled water constitute a lotion sufficiently powerful to commence with, and its strength may be gradually increased, until the undiluted substance is employed.

Extirpation of the Eye.

As circumstances may arise in which the removal of the globe may be considered proper, I shall take the present opportunity of describing that operation, although, from what I have before stated, it will be obvious that there is but little encouragement to have recourse to so severe and dangerous a proceeding. Painful such an operation must necessarily be, from the sensitive nature of

the textures, through which the knife is to be carried, and dangerous because it sometimes hurries on the fate it is intended to prevent or protract. Cases have occurred in which this operation has been performed, when the patient might otherwise have lived months, or even years, that have terminated fatally within a few days, from the great constitutional excitement which followed. There must, in many instances, be a considerable risk of such a termination, more particularly when the disease is not confined to the orbit, but extends, as it occasionally does, posteriorly, into the cranium. So that, in cases in which there is a strong probability of the disease communicating with the brain, or in which the orbit or the neighbouring textures are contaminated with the malignant affection, which seems to call for the operation, we shall scarcely be justified in undertaking its performance.

When it is deemed advisable to proceed to the extirpation of the eye, it is to be performed in the following manner:—The patient is placed in the recumbent posture, his head supported on a pillow. The first stage of the operation consists in making a small incision through the skin and integuments, parallel with the natural fissure of the lids, from the external angle towards the temple, to such an extent as to afford ample room to get round the orbit with the scalpel. A large curved needle, armed with strong coarse thread, is then passed through the eyeball, from side to side; the needle being removed, the ends of the thread are tied together, a proceeding which gives great command over the eye, and enables the operator to proceed more rapidly. A double-edged scalpel is now employed to effect the separation of the globe from its connection with the orbit. It is usual to commence at the lower part: having made an incision through the conjunctiva and inferior oblique muscle, the same process is continued at the upper boundary of the orbit, by detaching the superior oblique and the rest of the conjunctiva from their connection with the globe. The scalpel is then carried all round the orbit, separating all the soft parts, and dividing the optic nerve close to the foramen opticum. It is necessary to be very cautious not to perforate the walls of the orbit, and particularly the roof, which is often much thinned, from disease or pressure, so much so, that without care the scalpel might be readily pushed through into the brain.

Having ascertained that all the soft parts are removed, the lachrymal gland is next to be laid hold of with the forceps, and excised either with the scalpel or curved scissors. There is generally considerable hæmorrhage from the ophthalmic artery and its branches, but it is easily stopped by a compress of lint. After the bleeding has ceased, the edges of the wound, at the external commissure, should be brought together, and the palpebræ covered with a pledget of lint, wet with cold water. It was formerly the practice to fill the orbit with dry lint, but that is not now the custom, and is unnecessary, except there should be much bleeding, otherwise it will only tend to excite irritation. A large dose of opium should be given immediately after the operation, and the patient treated according to the established rules.

Wounds and Injuries of the Eyeball.

I must next invite your attention to the subject of wounds and other injuries of the globe. I have already noticed those affecting the individual textures, but sometimes injuries inflicted on the eye are of such a character as seriously to damage, more or less, the entire globe. Thus, in injuries produced by sharp and powerful instruments, projected with considerable velocity, such as the shuttle, in weaving, we often find a large wound, extending across the cornea, rupturing the anterior part of the sclerotica, separating the iris from the ciliary ligament, or tearing it right across, so as to occasion a very irregular and sometimes double pupil, with displacement and opacity of the crystalline lens, evacuation of the aqueous and a great portion of the vitreous humors, and prolapsus of the iris, choroid, and sometimes of the retina. In cases of so severe a character, the chances of a restoration of sight are very small; but I have occasionally been much surprised to find that in some a considerable amount of vision has been regained. On the other hand, it occasionally happens that a very slight blow or wound of the globe will instantly and totally destroy vision. The immediate treatment of all such cases, particularly of wounds, should be that of keeping the eye perfectly at rest. For this purpose the application of strips of adhesive or court plaster, so as to keep the lids in apposition, in the manner I have before pointed out, is the most effective proceeding. The after-treatment will depend upon the peculiar circumstances that arise.

Sometimes, foreign bodies are projected into the chambers of the eye, such as pieces of metal, shot from a gun, portions of gun-cap, and the like. When a small portion of metal or other substance has perforated the cornea, and is seen lodging in the anterior chamber, I think it best to make a small puncture, and endeavour to remove it with the aid of forceps, or the iris-hook, particularly when the case is seen at the time of the accident; but if the injury have happened at some former period, and the foreign body has not excited any irritation, it will probably be as well not to interfere, since it may gradually undergo the processes of solution and absorption, or become encysted. I have known instances, however, in which the eye has been destroyed, in consequence of repeated attacks of inflammation that had resulted from a piece of steel being allowed

to remain in the anterior chamber. In one case which very recently came under my notice, a fragment of steel, about the size of a large pin's-head, had perforated the cornea, and was seen lodging upon the lower portion of the iris, near to its ciliary margin. The accident had occurred only an hour or two previously. I made a small puncture with a cornea-knife, through which the aqueous humor was discharged, then introducing an iris-hook I readily detached the foreign substance, although somewhat imbedded in the structure of the iris, and brought it out of the eye. The pupil was left slightly irregular, in consequence of prolapsus of a portion of the iris; which, however, afterwards regained its natural shape, and the patient experienced but little inconvenience either from the injury or the operation. As a general rule, I should think that, when the body is distinctly visible and easily accessible, as in the case just mentioned, it would be the best practice to effect its removal, otherwise there may be a long train of troublesome symptoms resulting in iritis, closed pupil, and even amaurosis.

When the eye is injured from gun-shot wounds the effects are variable. If the cornea be much injured, of course vision may be destroyed from the resulting opacity. In cases in which one or two grains of gunpowder perforate the eyeball, there is not much to be apprehended, except they should have entered the substance of the lens or wounded the capsule, when opacity will be the result, which must be treated as other cases of accidental cataract.

When a shot has struck against or entered the eyeball, the effects are in general more serious. Mr. Lawrence relates a case in which the eye was merely struck obliquely with a small shot, but which, nevertheless, produced complete amaurosis.

In cases in which the shot enters the eye, it usually passes into the posterior chamber, and is productive of considerable irritation, resulting in discoloration or opacity of the lens, a preternaturally contracted or dilated pupil, and paralysis of the retina. An interesting case of this description has been recorded by Dr. Butter, of Plymouth, in which a shot perforated the eyeball, and extinguished vision. The patient did not experience much suffering immediately after the accident, but he was liable to occasional attacks of inflammation, at which times he had great pain in the injured eye, and much disturbance in the functions of the sound organ, so much so as to lead him to dread the loss of the latter. During these attacks, he had recourse to leeches, antiphlogistic treatment, and rest, which gradually procured relief. Under these circumstances, he was anxious that an attempt should be made to extract the foreign body. He was advised, however, to remain quiet for some time. At length, four and a half years after the receipt of the injury, occasional attacks of inflammation continuing to recur, extraction of the lens, which was opake and of a bony consistence, was resorted to, without affording any relief, the irritation returning as before. Two years afterwards, Dr. Butter extirpated the eye in the usual manner, and, on dissection, discovered the shot firmly impacted in the optic nerve, close to its junction with the retina, where it had been lodged six and a half years before. After the removal of the organ, the irritation gradually subsided and did not recur.

Portions of gun-caps, which have been exploded in the act of firing, or by some other forcible means, frequently penetrate the globe. These are usually productive of a train of phenomena similar to those which result from shot or other metallic bodies perforating the eye. Cases of this description have of late very frequently presented themselves at the hospital. Mr. Crompton has recently given a published statement of several which came under the care of Mr. Barton. This gentleman, justly considering that the fragment in these cases had penetrated the globe, and probably remained in the posterior chamber, was led to perceive the propriety of making such an aperture as would admit of the escape of the foreign body. He was further led to believe that this operation, by giving exit to the source of irritation, would likewise have the effect of preventing that sympathetic inflammation which so often appears in the sound eye, as a result of previous injury. The operation is the same as that I have before described for staphyloma, and consists in excising a considerable portion of the cornea, so as to permit of the complete evacuation of the contents of the globe. A large dose of opium is given after the operation, and a poultice is applied over the orbit. It usually happens that, within a few days, the portion of gun-cap has been found either in the coagulum plugging up the wound, or on the surface of the poultice. These percussion-caps are made of copper, a substance which is incapable of solution within the eye, and over which the absorbents seem to possess no power. The result of such a body remaining in the eye is a continued series of inflammatory attacks, in which the disordered action is not always confined to the injured organ, but is likewise very apt to extend to the sound one. And this brings me to the consideration of the morbid action which, in consequence of injury to one, so frequently attacks the other eye.

Sympathetic Ophthalmia.

The affection which I have thus designated has been ably described by Dr. Mackenzie under the head of *sympathetic iritis*. This term is, perhaps, somewhat objectionable, inasmuch as the eye is in many cases affected without the iris being implicated; whilst in others, the iris is far from being the exclusive

seat of the affection, the internal textures generally participating. I fully admit, however, that the iris is the part that most frequently suffers, and that it is usually the focus of the morbid action which attacks the eye secondarily affected after cases of severe injury. Sympathetic ophthalmia is, indeed, by no means confined to such cases. I have witnessed many, in which chronic inflammation of the internal textures, having all the appearances observed after injury, and which could not be distinguished except by the history of the case, was observed to be gradually developed in one eye, and afterwards very slowly extended to the other, apparently as a consequence of the irritation in the organ first affected.

You will remember that on a former occasion I alluded to this subject, and remarked that it is a very common occurrence, as, indeed, is well known to the most superficial observer, for both eyes to become consecutively affected with the same disordered action, and that whether the external or internal tunics are the seat of the disease. This is so much the case, that when a patient complains of one eye being affected, the surgeon naturally inquires if the other be not in some measure similarly circumstanced; and such, in most instances, is apt to be the case. This sympathetic affection, (if, indeed, it would not be more correct to consider it as a mere extension of morbid action from one organ to another, with which it is closely allied, both anatomically and physiologically,) is, as I have said, far from being confined to the diseases of the internal textures: on the contrary, I think it more frequently occurs in such as affect the external tunics, as is daily seen in purulent, catarrhal, pustular, and other varieties of conjunctivitis, as well as in affections of the cornea. True, in the diseases of the external tunics, the period which elapses between the morbid action developing itself in the eye secondarily affected, is generally briefer than is noticed in those of the internal textures. In the former, such as purulent or catarrhal ophthalmia, but a few days or even hours generally intervene, still there is in most cases a decided interval; whilst in other varieties, such as pustular ophthalmia, and more particularly corneitis, a considerable period frequently elapses, and sometimes the second eye is not attacked until after the recovery of the first, or when it is about recovering. This probably depends, partly, upon the greater or less susceptibility of the different textures to diseased action, the conjunctiva being the most susceptible of all, and partly upon the peculiar susceptibility of the individual.

Dr. Mackenzie imagines that if a particular portion of the eye, viz., the junction of the cornea and sclerotica, be injured, there is a greater tendency to sympathetic ophthalmia being induced, than when any other portion of the organ is the seat of the mischief. It appears to me, however, that it is not so much the particular part of the eye which has received the injury, as the degree of violence with which it was accompanied, to which this tendency is owing. Dr. Mackenzie further remarks, that he has never witnessed sympathetic ophthalmia to result from such a wound as is inflicted during the operation of extraction; but this immunity, I apprehend, is more likely to be due to the comparative absence of violence than to the particular texture implicated, since it is, in general, only the more destructive injuries of the eye which are followed by the severe disease of which we are now speaking. The same able writer also supposes, and I think very correctly, that persons who are tainted either with scrofula or syphilis, or who are otherwise in an unhealthy condition of body, are more likely to be the subject of this secondary or sympathetic ophthalmia.

The mode in which the diseased action is communicated from the injured to the sound eye is a matter of speculation. The general opinion is, that the communication is effected through the medium of the optic nerves; but it is quite as reasonable to suppose that the nerves of common sensation are the real agents, these being always in a state of increased or morbid sensibility during an attack of almost every variety of ophthalmia. Such at least is likely to be the case when the outer tunics are principally affected; whereas, in internal ophthalmia, the extension will probably be effected by the agency of the ciliary or optic nerves, according as the iris or retina is most affected.

I have said that the iris is not the exclusive seat of the sympathetic ophthalmia, because in some instances the inflammation is confined to the external tunics, and in others the retina is almost solely affected. I have now a case which I have watched for a considerable time, one eye having been destroyed by a severe injury nearly two years since, and the other almost ever since the subject of a slight degree of amaurosis, indicated by imperfect vision, a somewhat dilated and inactive pupil, occasional appearance of muscæ and similar phenomena, but not the smallest degree of iritis. Mr. Lawrence has also remarked, that persons who have lost one eye from injury are frequently attacked with amaurosis of the other.

Sympathetic ophthalmia, when it affects the internal textures generally, is certainly, in the majority of cases, a most severe and uncontrollable disease; and, when once fairly established, the chances of a restoration of vision are very precarious. This affection is characterised by the usual symptoms of deep-seated inflammation of the eye, such as a muddiness of the humors, contracted and sluggish or immoveable condition of the pupil, change of colour of the iris, and an extremely congested state of the sclerotica, and occasionally of the conjunctiva. If the

affection be unsubdued, further changes take place, the iris becomes puckered and very irregular, the capsule opake and adherent to the uvea, the pupil almost obliterated, the sclerotica attenuated, and, perhaps, bulging at one or more points, its surface, as well as that of the choroid, covered with varicose vessels, and the retina probably thickened from deposit of lymph, and perfectly insensible. The most rigid antiphlogistic treatment will, in many cases, be found to be totally unavailing, and yet it is the only one that can be resorted to with a probability of success. Bleeding from the arm, leeching, mercurials, the exhibition of purgatives, and counter-irritation, should be energetically employed in the outset, just as in a case of severe internal ophthalmia. There are very few cases, however, which are more than temporarily benefitted by the adoption even of the most energetic measures of this description.

Seeing, then, that the morbid action induced under these circumstances is of so destructive and uncontrollable a character, the question forcibly presents itself, can nothing be done to prevent the attack? Now, it has been pointed out and urgently dwelt upon by Mr. Wardrop, that a somewhat similar occurrence is frequently witnessed in the eyes of the horse; that that animal is frequently affected with an inflammatory disease which first attacks one eye, and is afterwards found to attack the other; that it is the practice of veterinary surgeons to effect the destruction or suppuration of the eye originally affected, in order to save the other from taking on the same disease, and that such practice is commonly successful. Ought this proceeding, then, to be adopted in cases of severe injury, one eye being certainly lost, and the other participating in the morbid action? I confess that I am strongly inclined to this practice, and see no reason why it should not, under favourable circumstances, be attended with success. In the case, whose history I shall briefly relate, I adopted it, and, although unsuccessfully, yet its failure was probably to be attributed to the advanced state of the disease, and to the circumstance of the operation not having been resorted to at a sufficiently early period.

Case.—Henry Hindle, æt. 21, on the 16th of March, 1840, whilst following his employment of weaving, received a severe injury of the *right* eye from a shuttle. The instrument had made an oblique and irregular wound across the upper and outer part of the cornea extending into the sclerotica; through the centre of the wound, viz., at the conjunction of the sclerotica and cornea, was a large protrusion of the iris, and probably of the choroid; the anterior chamber was full of blood, so as to prevent any view of the interior of the eye. He had suffered considerable pain since the receipt of the injury, which had much abated when he applied for advice on the following day. The eyelids were brought together and kept in apposition by strips of plaster, and he was recommended to keep quiet, and to take a purgative occasionally. The case appeared to go on as well as such cases usually do until the expiration of a month from the receipt of the injury, when symptoms of inflammation were developed in the *left* eye. The usual antiphlogistic remedies, such as leeches, mercury, blisters, and the like, were resorted to with but little effect; when, on the 28th of April, he was admitted an in-patient of the hospital. At this time there was a most intense degree of inflammation presenting itself in the eye last affected, the conjunctival and sclerotic vessels being exceedingly numerous and congested, particularly the latter, the anterior portion of the membrane being of a deep purple or leaden hue; the iris had undergone a considerable change of colour, bulging forwards everywhere except at its pupillary portion, which appeared as if drawn backwards, being evidently adherent to the capsule, and much contracted and fixed, the capsule opake, and vision nearly destroyed. There was a considerable amount of inflammation also still existing in the injured eye, the site of the wound very prominent, although the protrusion of the iris was much diminished, and he continued to experience some pain in it. He had been in the hospital four days, during which time the antiphlogistic and mercurial treatment was continued without benefit, when, a consultation having been held, it was determined that the operation of sinking the injured eye should be resorted to in the hope that it might arrest the further progress of the mischief in the other. This operation was performed on the 2nd of May, rather more than a fortnight after the commencement of the disease in the left eye. I made an incision of the cornea by passing a cataract-knife through the anterior chamber, as in the operation of extraction; the flap thus formed was then laid hold of with the forceps, and cut off with a pair of curved scissors, so as to remove the greater portion of the cornea. The excised portion of cornea was found much thickened from deposition of organised lymph on its posterior surface; and there was a considerable quantity of dark-coloured grumous blood occupying the posterior chamber, which being evacuated, the eye immediately collapsed. A draught, containing forty drops of laudanum, was administered, and a poultice ordered to be applied over the eye, which continued free from irritation after the operation, and occasioned no further trouble. The next day, as he complained of headach, the pulse being hard and full, and some constitutional disturbance present, he was bled freely from the arm, and five grains of calomel were ordered to be given him every four hours until ptyalism was produced. Four days afterwards he was in a state of salivation, and the calomel was, therefore, discontinued. Pur-

gatives and other antiphlogistic treatment were also resorted to, and a blister was applied to the nape of the neck, and the part kept sore for several weeks. As soon as the ptyalism had abated, a pill, containing two grains of calomel, with half a grain of opium, were ordered to be taken every night, so as to maintain a slight mercurial action in the system. He remained in the house under this treatment five weeks, at the expiration of which time the inflammatory action had nearly subsided, but the pupil remained contracted, the capsule opake, and the iris retaining the appearances it presented on his admission; vision was somewhat improved, as he was able to discern the fingers when held before the eye, light-coloured objects, and the like. Being at this time much reduced by the treatment resorted to, it was deemed advisable that he should return home into the country, and directions were given him to attend occasionally as an out-patient. I had hoped that after a time the eye would have got into a quiet state, and that some operative proceedings might have been resorted to with a chance of materially improving his sight. In this, however, I fear I shall be disappointed, for since his discharge he has been subject to renewed attacks of inflammation, and at this present time the eye is in as unfavourable a condition as at any former period, and vision has rather deteriorated than improved.

The result of this case would induce me in future to perform the operation at a much earlier period; in fact, as soon as symptoms of inflammation have become developed in the second eye. In the instance just related, the operation was, no doubt, performed too late to be of service, since the mischief that should have been averted had already occurred. When the eye is so severely injured as in this case, there is scarcely a chance of any useful sight being restored. Moreover, an eye thus injured generally becomes either atrophic or staphylomatous. In the latter instance, the same operation is needed as that recommended for the prevention of the sympathetic disease of the other eye, so that it is only a question of time; whilst in the former, the ultimate condition is the same, whether an operation be performed or otherwise. The operation, when the eye is in a state of great vascular excitement, is certainly more painful than in other circumstances; but when rapidly executed, is instantaneously effected, and the patient is relieved from further irritation in it, and, if resorted to sufficiently early, would probably in most instances be the means of arresting the mischief in the eye secondarily affected. Indeed, it is a question with me, whether it would not be good practice, in cases of such severe injury as generally give rise to the sympathetic ophthalmia, at once to evacuate the contents of the eye in the manner I have detailed. If we could point out the particular cases in which such sympathetic affection would be most likely to come on, then such a course would be clearly advisable. But it may further be a subject for careful consideration, whether the amount of irritation saved, by early sinking the eye, would not alone more than compensate for the pain occasioned by such an operation. When it is remembered that, in these cases, the eye is the seat of very considerable pain and irritation, in a great measure probably owing to its being distended with coagulated blood, and that this state will certainly continue for many weeks or even months, and that after all the organ will surely be destroyed, and, perhaps, become staphylomatous, so as at last to require the same operation, the proposal—to sink the eye and remove the source of irritation—will not appear so very extravagant. Couple with this consideration, the greatly diminished risk of the other eye becoming affected, and I think that a strong case is made out in favour of the view I have been urging.

Dr. Mackenzie remarks, that he has never known an instance of recovery from sympathetic ophthalmia, and that renewed attacks have, in every case, terminated in the extinction of vision. I have, however, a case which has been under my care upwards of two years, which will, I trust, prove an exception to this, I fear, general rule. The case, which I shall only briefly mention now, is that of a little girl, nine years of age, who, more than two years since, had a piece of slate thrown with such force against the right eye as to produce a severe lacerated wound extending across the cornea and a part of the sclerotica. This eye is now very much smaller than natural, indeed completely atrophied. The sympathetic inflammation came on in the opposite eye about six months after the receipt of the injury, and did not acquire that intensity which is so often witnessed; but it has left the capsule opake, the pupil rather contracted and adherent, and the iris considerably changed in colour, but free from bulging or other irregularity The eyeball generally has, in other respects, a healthy appearance; she is able to discern luminous and shining objects, and can readily observe when anything is held before the eye, so that I hope that, as she has now been free from any renewed attack of inflammation for some months, I shall be able shortly to perform some operation which will have the effect of restoring her to sight.

Malformations of the Globe.

In addition to the instances previously related of deficiencies and malformations of individual textures, I have to state that sometimes there is an absence of the entire globe witnessed. I have seen two children, sisters, in this condition, having both eyes deficient at birth, the orbits being apparently occupied with nothing but cellular texture. There

was likewise a very small aperture between the lids, which were but imperfectly developed, and without any lachrymal puncta, although the lachrymal gland must have been present, since there was a copious flow of tears occasionally observed, as in crying. In one of the children, who died when only a few months old, the optic nerves within the cranium were found to be remarkably small, as if atrophied or undeveloped; they did not enter the optic foramina, neither did they form the usual junction, but remained single through their entire course.

In some cases, only one eye has been deficient; when this is the case, it has been usually found situated in the middle of the forehead, and formed of the two eyes imperfectly united: thus, the palpebræ were joined in the centre, the optic nerves in a state of union, two lachrymal glands, the lens very large, and the iris apparently divided. This deformity is seldom observed, except in domesticated animals. Other monsters have been described having four eyes; these are generally accompanied by malformation of other parts of the body.

ON THE

MEDICAL BOTANY

OF THE

PARISH OF HALIFAX.

By JOHN S. HILEY, Esq., A.B., M.B., T.C.D.

Τους μεν τ' ιητροι πολυφαρμακοι αμφιπεφνασι.—HOMER.

In offering to the notice of the readers of THE LANCET a paper on the medical botany of this extensive parish, I ought to premise that it is not my intention to enter very minutely into the subject, or to give a long account of the virtues, &c., of each herb that grows. By the first step I shall avoid becoming tedious, and by the second I shall not subject myself to the charge of filling its pages with much unnecessary matter. In following out this view I may be allowed to state, in the commencement of my writing, that whether we take into consideration the medical or general botany of the parish, perhaps no other district of the same size throughout Great Britain is so well supplied with plants. I am not, however, aware that we can boast of many rare specimens. The situation is more remarkable for the number, and for the elegance and luxuriance of the more ordinary vegetable products, than for anything else: so much so, indeed, that if I were about to write its general botany, I should feel some difficulty in deciding whether it would not be easier to give a catalogue of the plants which do not grow here, than to enumerate those whose habitats are amongst us. Most of the ordinary specimens alluded to in the writings of Sir James Smith and Dr. Hooker may be gathered in the greatest abundance; and, providing the waters of the ocean washed the borders of this parish, so as to render it suitable for the growth of vegetables which have their habitats near the seashore, I should then hold that no other tract of country of the same area could boast of a more extensive and varied herbarium. This fact may be explained, probably, by the great variety of soil which is met with here, and also by the mixture of hilly and romantic scenery with the more even and picturesque. In a word, we have districts closely resembling the Highlands of Scotland; whilst at the foot of these are flats, valleys, and slopes, which rival in beauty whatever has been seen in the South of England. Do you walk out in spring, summer, autumn, or winter, your attention is everywhere invited to the plants peculiar to each season. Every situation has its display, whether in the fields and woods, on the banks of rivers, among the lanes and hedges, or on the hills; and here we may gather almost unnumbered flowers of a thousand variegated hues. It may be observed of the entire parish what the illustrious Goldsmith said of "sweet Auburn"—

> "Here smiling spring its earliest visit paid,
> And parting summer's ling'ring blooms delayed."

In speaking of the locality of this parish, we have to add, in the language of the celebrated Whittaker, "that it is situated within the wapentake of Morley, in the West Riding of the county of York, and comprises a mountainous and bleak region of country, forming a portion of what are usually termed the English Appenines. It extends 17 miles from east to west, and on an average 11 miles from north to south, and contains an area of 75,140 English statute acres. Its boundaries on the north-west, west, and south-west, are the parishes of Rochdale and Whalley, in the county of Lancaster; on the south, the parish of Huddersfield; on the south-east, the chapelry of Hartishead; on the east, the parish of Birstall; and on the north, the parish of Bradford, in the county of York. The whole district now comprising this great parish, may be considered as one valley with its numerous collateral forks, bounded, at very unequal and constantly-varying distances, by two high and barren ridges of moor-stone. The general appearance of the bottoms is pleasing and picturesque; scarcely a foot of level ground appears, except the alluvial lands, which are unusually fertile. The sides of the hills immediately above are hung with woods and native oak, which delights in the clefts and crevices of sandstone, though it rarely attains in such situations the bulk and majesty of form which it acquires in deeper soils. So various is the course of the principal valley, that the eye is never fatigued by resting on one uniform and protracted expanse,

but is delighted with sudden and unexpected turns, producing new and varied beauties. Above these are long and widely-extended slopes, where art and expense, which manufactures alone could have afforded, have triumphed over what otherwise would have been deemed unconquerable barrenness, producing a verdure not unequal to that of native fertility. Above all appear the purple ridges of the mountains, defying all the power of man, and destined for ever to contrast the original face of savage nature with the effects of toil and industry. On the brows of these hills frowns many a sturdy block of freestone, sometimes, perhaps, worn away by storms to a narrow and immoveable point, which the fondness of antiquarian fancy has decreed to be Druidical. From the boundary of Lancashire to the valley which separates the townships of Halifax and Ovenden from Northowram, the whole basis of the parish is gritstone. Immediately to the east of this valley argillaceous strata, with their general concomitants, stone and iron, once more appear."

Of the medical botany of this, the largest parish in England, I now propose to write; and in doing so, it must be remembered that it is to the physician that it will be principally interesting; and though there is not that attention given to the subject which was paid to it by our forefathers, yet still it is fraught with innumerable charms. If former ages were characterised by an overweening confidence in the efficacy of herbs, it cannot be denied that medical men are far too neglectful of them at the present. To have steered a middle course between these two extremes would have been greatly preferable, and we should thus have avoided the foibles of the one with the punctiliousness of the other. In extenuation of this evil, we are told by the medical men of our own day, that a materia medica composed of indigenous productions is not suited to the constitutions of the present inhabitants of this country; that the use of foreign luxuries has introduced diseases formerly unknown, and consequently that exotic remedies are to be employed in their cure. I am not disposed to deny *in toto* the truth of this assumption, but still I am bound to believe that many native remedies are allowed to lie dormant around us, because of the addition to our pharmacopœias which foreign climes and the recent investigations in chemistry have enabled us to make. I am also of opinion that every country produces vegetable remedies calculated to remove the diseases of that country, providing the constitutions of its inhabitants have not been modified by the use of foreign luxuries. Again; another reason may most likely be assigned for the falling into disrepute of native productions. In former ages Great Britain had not acquired that high state of cultivation which it has in later days arrived at; and in all probability this is to be looked to as one cause of the change in the opinions and practices of medical men. It is well known that when herbs are not produced in their natural state their properties and qualities are materially altered, and therefore it is that the cultivation of lands once waste and unenclosed, has diminished the medical virtues of herbs which formerly flourished there. Many examples testifying the truth of this observation might be adduced. Thus plants, poisonous in their native state, are often rendered innocuous by cultivation. The conium maculatum of ancient Greece, though the herb administered to Socrates, loses a great portion of its poisonous qualities when introduced here. This, however, is not a case exactly to the point, but my readers will no doubt be enabled to call to their recollection many instances which are. I am the more disposed to dwell here, because even at the present day there are many wild parts of Yorkshire where medical botany is still cultivated, and where the diseases of these districts continue to be treated by native productions. It must be remembered that foreign luxuries have not changed the ancient character and primeval simplicity of the people; and hence the native herbage is still considered highly efficacious, and holds its place against the increasing current of recently-imported remedies. It is here that indigenous plants are gathered in all their exuberance; where the localities are best calculated for their growth; where modern fashions have not as yet changed the nature of the soil; and it is in these sequestered and uncultivated spots where the botanist culls his choicest specimens. In the mountainous parts of this neighbourhood, I have repeatedly seen a collection of more than thirty specimens, the medical virtues of each of which were known to the owner. In these places nature may be said to sport at her greatest ease; she is, as it were, unsubdued by cultivation, and accordingly all her productions are possessed of properties which the hand of Providence originally assigned to them. Here medical botany is the study of every rustic; and each cottage, whether on the mountain or in the glen, has its herbal. I now propose to give a catalogue of the vegetable sanatives which are to be met with in the parish of Halifax, in the order of their classes. To the names of those which, from their high medical qualities, have some importance attached to them, I shall merely subjoin a short notice of their habitats and seasons of flowering, inasmuch as their virtues are sufficiently notified by other writers. Of the rest I shall content myself with particularising the names, reserving any remarks I may have to offer either to a future part of the essay, or I will place them along with the catalogue. In being able to supply the habitats, I must not omit to state how greatly I am indebted to my respected friend, Mr. Robert Leyland, of Halifax, whose knowledge of

the general botany of this parish none can surpass.

The catalogue is as follows:—

DIANDRIA.—*Monogynia.*

Veronica beccabunga.

Fraxinus excelsior.
Used in place of cinchona in ague.

TRIANDRIA.—*Monogynia.*

Valeriana officinalis. Common in June.

TETRANDRIA.—*Monogynia.*

Galium aparine.

Asperula odorata.

Plantago major, minor, and media.
The whole genus is mucilaginous and astringent. The seeds yield their mucilage to hot water, and have been employed for the same purposes as linseed and mallows.

PENTANDRIA.

Monogynia.

Convolvulus arvensis.

Convolvulus sepium.
Purgative, like the exotic convolvuli. From fifteen to twenty grains of the watery extract of the roots of convolvulus sepium act freely as a drastic purgative, and without much griping.

Erythræa centaurium.

Solanum dulcamara.
Behind Bradley Mills, near Elland, and in other parts of the parish, in June and July.

Digynia.

Angelica sylvestris.
General in July; its virtues are similar to the archangelica: which last is one of the most elegant aromatics of European growth, and it is somewhat strange that it should be so little regarded in modern practice.

Myrrhis odorata.
At Stern Mill and on the banks of the stream between Gatehead and Bower's Mill, in May. The young seeds have the flavour of anise, and are gratefully stomachic.

Œnanthe crocata.
Near Copley Mills, and in Elland-park, just above the road leading to Brighouse, in July. It is very poisonous.

Conium maculatum.
On the banks of the Calder, &c., in June and July.

Œthusa cynapium.
Common in July and August.

Trigynia.

Sambucus nigra.
Common in woods and hedges in June.

Pentagynia.

Linum catharticum.
In dry pastures in many parts of the parish, in June, July, and August.

HEXANDRIA.

Monogynia.

Allium ursinum.
Very common in May and June. It is stimulant and diuretic.

Trigynia.

Rumex; several species.
A decoction of the leaves of these herbs in whey affords an useful and agreeable drink in febrile or in inflammatory disorders. Like the oxalis acetosella, they owe their properties to the binoxalate of potash which they contain. They possess many properties in common with rhubarb, and have the same botanical characters. They also belong to the same natural family.

Polygynia.

Alisma plantago.
In the canal near Elland and Salterhebble, in July. The Russians have introduced this to the notice of physicians as a remedy for hydrophobia.

OCTANDRIA.

Monogynia.

Vaccinium myrtillus.

Vaccinium vitis Idæa.
In Birks Wood, near Halifax, in June.

Vaccinium oxycoccus.
On the moors near Barkisland, &c., in June. These shrubs are refrigerant and astringent, and it is a pity that modern practice has not paid more attention to them.

Erica vulgaris.
Said to be useful in lithiasis.

Trigynia.

Polygonum bistorta.
The root of this plant resembles rhubarb in some of its properties. It is also a powerful styptic, and is employed in all kinds of immoderate hæmorrhages and other fluxes, both internally and externally. It is given in powder, the largest dose of which is one drachm. Common in June.

Tetragynia.

Paris quadrifolia.
In North Dean Wood, and in Duns-park-lane, near Elland, but not plentifully, in May and June. Root emetic, like ipecacuanha, and poisonous.

DECANDRIA.

Monogynia.

Pyrola media.
In North Dean Wood, near Elland, in July and August.

Trigynia.

Cucubalus bacciferus.

A nicely-flavoured vegetable.

Stellaria media.

Pentagynia.

Oxalis acetosella.

Refrigerant and antiseptic. It is considered a good salad in scorbutic affections. In the pharmacopœia its place is supplied by lemon-juice and citric acid. Binoxalate of potash is its active principle, and hence it is given in fevers by continental physicians. It is said to be the real shamrock of Ireland.

ICOSANDRIA.

Monogynia.

Prunus spinosa.

Common in hedges and thickets, particularly about Raistrick, where it flowers in March and April. An infusion of the flowers is a safe and easy purgative.

Pentagynia.

Spiræa ulmaria.

Common in June and July. It is highly aromatic.

Polygynia.

Rosa canina. Common in June and July.

Tormentilla officinalis.

Potentilla reptans.

Common in June, July, and August. Astringent, and as such I have used it with benefit.

Geum urbanum.

POLYANDRIA.

Monogynia.

Papaver rhœas.

In corn-fields in June and July.

Polygynia.

Anemone nemorosa.

Ranunculus acris, bulbosus, flammula, ficaria, hederaceus, and gramineus.

DIDYNAMIA.

Gymnospermia.

Glechoma hederacea.

Common on the banks of the Calder, &c.

Betonica officinalis.

Teucrium scoradonia.

An useful bitter. Very common.

Thymus serpyllum.

On Midgeley Moor, where it flowers in July and August. It is stimulant, diuretic, and emmenagogue, and ought not to be neglected in places where it is found.

Mentha; some species.

Angiospermia.

Euphrasia officinalis.

Very common. It is astringent and aromatic, and hence its efficacy in collyria.

Scrofularia nodosa.

Digitalis purpurea.

Both are common in every part of the parish. They flower in June and July.

Antirrhinum linaria.

Diuretic. In hedges and the borders of fields. Frequent in June and July.

TETRADYNAMIA.

Siliquosa.

Cardamine pratensis, hirsuta, and amara.

Erysimum alliaria. Warm and pungent.

Sisymbrium nasturtium.

Raphanus raphanistrum.

Sinapis arvensis.

MONADELPHIA.—*Decandria.*

Malva sylvestris.

DIADELPHIA.

Hexandria.

Fumaria officinalis.

Dr. Cullen recommends the juice of this herb in leprous disorders.

Octandria.

Polygala vulgaris.

It is tonic, bitter, and expectorant, and is good for a catarrhous cough. By some it is made use of as a substitute for seneka.

Decandria.

Spartium scoparium.

SYNGENESIA.

Polygamia Æqualis.

Leontodon taraxacum.

Arctium lappa.

Polygamia Superflua.

Tussilago farfara.

Solidago virga aurea.

Anthemis cotula.

Achillea millefolium.

Pyrethrum; one or two species.

Senecio vulgaris.

MONŒCIA.

Monandria.

Euphorbia helioscopia.

Common in cultivated grounds in July and August. It was employed as a purgative by the Grecians. The juice is acrid, and is occasionally applied to warts.

Tetrandria.

Urtica urens, and dioica.

Polyandria.

Quercus robur.

Arum maculatum. Common in May.

DIŒCIA.

Diandria.

Salix; several species.

Tonic and astringent. They are well deserving the attention of medical men.

Hexandria.

Tamus communis.

Common in hedges, where it flowers in June.

CRYPTOGAMIA.—*Filices.*

Aspidium filix mas.

Anthelmintic. Beginning to be forgotten, owing to the discovery of the superior effects of oil of turpentine in killing and expelling tænia. It is gratifying, however, to watch the operation of the fern root, more especially when its administration is attended with the good effects ascribed to it in medical authors.

In the preceding catalogue it will be seen that I have enumerated several plants which either have never obtained a place in the pharmacopœias of this country, or being once placed there, have since been expunged, or have otherwise fallen into disrepute. Respecting several of them I shall, as I before stated, take the liberty of making some further observations, inasmuch as they were often the subject of experiment in the practice of my late father, and have since been submitted to trial by myself; for in every admissible case I have had recourse to native remedies rather than to foreign ones. Hence it is that I have repeatedly experienced the utility of mountain flax, or Billy Roundhead, as it is termed by the inhabitants of the wilder parts of Yorkshire, as a purgative. In some complaints, I consider it equal, if not superior, to senna. An infusion may be made in the same manner as the infusion of senna of the London Pharmacopœia. It grows in great abundance in many parts of this parish, particularly in dry pastures; and numerous are the cases amongst the lower classes which have been treated successfully by this agent. The character of disease in the district to which I belong is inflammatory. This arises from the peculiar occupations, high living, &c., of the inhabitants. In affections of this nature, then, and wherever the bowels require a free purge, I am confident, from a variety of observations, that the linum catharticum will answer every purpose. Moreover, its operation is not attended with the griping and tormina which accompany the action of the more costly native of Africa and India. I have known the linum catharticum given in conjunction with senna; that is, an infusion made of equal parts of these drugs. When this has taken place, I have seen many instances where the purgative qualities of the two in combination exceeded in a great degree those of either production separately. The operation of purging flax is as rapid as that of senna, and, like it, its effects extend over the whole length of the alimentary canal. In combination, also, with sulphate of magnesia, it is extremely useful during the spring and autumn, at which time the system often requires to be relieved of those humours which, according to many of our earlier pathologists, have been previously collecting. Purging flax may be collected and dried in June, July, and August, during which months it is in flower, and afterwards cut up into small pieces, and preserved for use. It may be mixed with an equal quantity of senna, or kept in a drawer by itself.

In the eruptive affections to which the inhabitants of this district are liable in the early part of spring, or the beginning of summer, I have frequently had occasion to remark the benefits arising from the use of a decoction of several herbs which may be gathered here. Amongst the first I may mention the galium aparine, or, as it is sometimes termed in English, Robin-run-the-hedge, and the urtica urens. A cupful of the infusion or rather decoction of these herbs, taken three times a-day, not only operates gently upon the bowels, but exerts a rather brisk action on the kidneys. In this manner they serve to cool the system, and to disperse the humours too prevalent at the season. They also determine to the skin, producing salutary perspirations. In the course of this essay I shall have to allude to other herbs possessed of somewhat similar properties, and like the above administered in the spring of the year.

The pyrola media, which is found in this parish, though not plentifully, has called forth the attention of medical men. Like the pyrola umbellata, recommended in the Dublin Pharmacopœia, it is possessed of tonic and diuretic qualities, and has been employed as such by some physicians with seeming advantage. In those places where it grows more abundantly, I think it ought not to be disregarded, since the pyrola umbellata, one of the same genus, has been exhibited with success by several American and Irish physicians. The last has succeeded in removing ascites, and other forms of dropsy, after digitalis and other remedies had failed; and it is said to have proved serviceable in acute rheumatism, intermittents, and other diseases assuming an intermittent type.

Dr. Ives, of America, states, that it will frequently mitigate symptoms of gravel, and strangury proceeding from other causes. Dr. Beatty, of Dublin, has published, in the Transactions of the Association of the College of Physicians of that city, a very satisfactory instance of its efficacy in a case of dropsy, after other remedies had been tried in vain. With the same intent the pyrola media was used in decoction by my father, and the beneficial effects consequent thereon were sufficient to warrant further trials. It is very bitter. From the results of a series of experiments, it appears probable that a principle, highly active, and possessed of the properties of this herb in a superior degree, as well as in a more concentrated form, might be obtained, which would render its exhibition less troublesome both to the physician and the patient. Such a preparation, we are prepared to expect, would, like the quintessence of other bitters, rest better on the stomach.

In the list of the other plants of this neighbourhood, whose medical virtues are worth noticing, are several of the family of the rosaceæ. Amongst these the tormentilla officinalis and geum urbanum hold a prominent place. I have occasionally wondered at the inferior position which the tormentil occupies in the pharmacopœias of this country. Undoubtedly, as a tonic, we possess many which are superior, but most of these are of foreign growth; and, moreover, as I had occasion to remark before, I am always in the habit of using indigenous specimens, especially if they grow in my own immediate neighbourhood, wherever this can be done safely and satisfactorily. This parish, particularly the vicinity of Elland, is peculiarly rich in tormentil. It is of the finest kind; and, what is better, it has numerous habitats, so that the herbalist can collect it in almost any quantity. The season of the year during which it flowers, and its beautiful widely-expanded corolla, will point it out to the gatherer. It loves loose and sandy soil, in places exposed to the rays of the sun, where it sports and basks the whole of the summer; and it is worthy of remark, that its root, when gathered in such situations, is far more powerful as a tonic, than when dug up elsewhere. Its root is the only part used in medicine; and this may be obtained in the middle of summer, when the plant is in flower. It is usually given in infusion, and wherever tonics are required; in cases occurring in my own practice, I have noticed its beneficial effects.

In speaking so highly of tormentil, I do not wish to rate its virtues above those of gentian, Columba, or cascarilla; but still I think it does not fall very far beneath them; and considerable experience leads me to the belief, that it is better calculated than any of these for the inhabitants of this district. It may not be considered either presumption or bigotry to observe, that if it had not been peculiarly useful, nay, ordained for society here, it would not have flourished amongst us in such abundance; and I am the more willing to stand forward the supporter of this doctrine, because I think it cannot be too deeply rooted in the minds of my medical brethren.

The geum urbanum also still maintains its place in the pharmacopœia, but it is not so generally employed as its good qualities would seem to warrant. Its effects are tonic, astringent, and febrifuge; and it is said to be an excellent substitute for Peruvian bark. It is only, however, in the country parts of England where herbs of this kind can be submitted to trial, for in large towns the attention of practitioners is not sufficiently directed to native sanatives. Both the stem, leaves, and roots of the geum were early held in great esteem in dyspepsia, dysentery, chronic diarrhœa, and flatulent colic; but for reasons best known to medical men themselves, they are seldom if ever exhibited. Notwithstanding this, the geum was often made use of by my late father in dyspepsia particularly, in which an infusion or decoction of it was found to be serviceable.

In the latter part of summer I have frequently met the honest countryman with bundles of the common avens under his arm; and on inquiry I have always discovered that it is the only remedy he can meet with for a dyspepsia with which he is often afflicted. In the lower walks of life it is made into tea. This plant is met with in abundance in the woods, shady, dry hedges, and thickets, in many parts of this parish, particularly in the neighbourhood of Elland. Here it flowers from May to August. Its flower is often a source of pleasure and admiration to the young botanist, because appearing thus early in the season, and in places which he is supposed to frequent, it presents to him something peculiar and strange. Moreover, he may have some difficulty in making out its name. It would seem, that amongst the continental practitioners it is more generally employed than amongst those of Great Britain.

Along with the tormentil and geum we will place the erythræa centaurium. In the dry, gravelly pastures of this parish it grows abundantly. It was once celebrated as a stomachic and tonic, and accordingly I have often given it with success in conjunction with the first-mentioned sanative.

It is now my duty to make a few passing remarks on the family of the ranunculaceæ. I have long entertained an opinion that preparations of the more acrid of these plants might be advantageously employed as external irritants. This idea is grounded on the fact, that when the juice of the ranunculus flammula is inserted into a slight wound, or scratch, on the surface of the skin, considerable pain and inflammation is the consequence. Moreover, when the juice is allowed to remain on the unbroken surface, well-marked vesication, in the course of a few hours, is produced. Vesication, however, thus effected, is, I believe, if anything, more painful than that arising from the application of a common blister. The different members of this family all possess vesicatory powers; they vary, however, in this, that some are much more powerful than others. I imagine that the ranunculus ficaria is least, whilst the ranunculus acris and flammula are the most irritating of those which grow in Great Britain. Both these last are very common. The habitats of the ranunculus flammula are marshy places, and the edges of swamps and ditches, where it flowers during the middle of summer. The whole plant is possessed of this acrid quality; and Dr. Withering recommends the distilled water as an emetic in cases of poisoning: he does not, however, mention the dose.

The R. sceleratus and alpestris are possessed of well-marked vesicatory powers, and readily blister the skin. The former in a bruised state, after blistering, leaves a sore, which is not easily healed, and by which strolling beggars, of the gipsy class, have been known to excite compassion. According to Haller the R. alpestris is the most acrid of its tribe. It is remarkable, however, that the Alpine hunters chew it by way of refreshment, as removing fatigue, and preventing giddiness. It is not the only one of this family possessed of acrid and vesicatory properties, which may be eaten with impunity; for the R. acris, arvensis, and bulbosus, are eaten greedily by cattle.

Possessed, then, of such acrid qualities, I would gladly invite the attention of medical men to their probable value as external irritants; and I would ask whether it would not be worth the while of country practitioners to apply them for producing vesication. They would, undoubtedly, prove serviceable, and might, after a few trials, be found to answer all the purposes of the Spanish fly. They would prove especially advantageous in country practice, as being more readily obtained; for in most situations the more common members of this highly-important family are in flower the greater part of the year. Here, the R. acris, bulbosus, and flammula, may be gathered in great plenty; and their bright yellow flowers, of various size, serve to decorate many spots which, without them, would be somewhat deficient in botanical specimens. Like the ranunculaceæ, the arum maculatum, in its fresh state, when rubbed between the fingers, blisters and excoriates. Whether it could ever be used for the production of vesication is yet to determine; and the fact that it loses its acrimony by drying, &c., may throw an insurmountable obstacle to its application in this way. By burying the roots in a cellar, in sand, they may be kept fresh for a year. Slight mention ought also to be made of the anemone nemorosa. This belongs to the family of the ranunculaceæ. It is possessed of an acrid taste, and its effects are rubefacient and blistering. Few plants are more common.

It is to be hoped that the talented writers and discoverers in vegetable chemistry will hereafter turn their attention to the subject under discussion. Here is a wide field for investigation. A train of experiments directed into this channel might be well repaid, and might ultimately lead to the discovery of preparations highly useful in a medical and pharmaceutical point of view.

The large family of the labiatæ present many plants which, on trial, have been found beneficial in certain diseases. Persons affected with stone or gravel, I have known to experience some relief during the paroxysm of this most painful affection, by drinking tea made from the glechoma hederacea. Its general effects are expectorant and tonic. Some of the other members of this important family are much esteemed amongst the lower orders of this parish, as cordials and stomachics; and, with respect to their tonic powers, I can myself bear testimony to their value. In those cases where there is loss of strength, accompanied with a white, but not a highly-furred tongue, together with a weak and deranged stomach, where the pulse is quick, but the skin not hot, and where there are few febrile symptoms, I have frequently observed great and unexpected benefit to arise from the use of an infusion made from some of the members of this family, in conjunction with chamomile, wormwood, and tansy. These last, the reader will recollect, are of the family of the compositæ.

In speaking of the labiatæ, I must not forget to make particular mention of the betonica officinalis. It is remarkable as an errhine, and its root is said to be emetic and purgative. I have often had occasion to notice the large quantities of this vegetable, which are annually collected by the poorer inhabitants; and for a long time I was at a loss to ascertain to what purposes it could be applied. On inquiry, however, I found that an infusion or decoction of it was drunk as tea, in laxity and debility of the viscera, and disorders proceeding therefrom. I have known my father order betony-tea with success in affections of the head, depending on derangement of the stomach and intestinal canal. Its sternutatory powers are not owing to any peculiar stimulating quality in the herb, but to the fine rigid hairs with which the leaves are covered. In the woods and thickets of this parish it is found plentifully, putting forth its beautiful purple flowers in July and August, which stand in dense spikes on the tops of the stalks. It has been affirmed by Simon Paulli and Bartholinus, that betony affects those who gather any considerable quantity of it with a disorder resembling drunkenness. I have tried this experiment on my own person, and have made inquiry amongst those who are yearly in the habit of collecting it, but I could never yet satisfactorily ascertain that any such disorder was experienced by them. Not to doubt the above-mentioned authorities, it is probable that the herb may have different properties in different districts, or that this peculiarity may, in some measure, depend upon the time of gathering. In my own case it was gathered when in flower. If its sensible qualities are to be held in any estimation, I would recommend it strongly to the attention of practitioners in the country parts of England.

The natural family of the scrofularineæ offers two indigenous medical plants to our attention. These are the digitalis purpurea and the scrofularia nodosa. The first is too well known to need any comment here. The

latter, though possessed of tolerable medical virtues, is not in so envious a position, for latterly it has declined very much in the estimation of practitioners, and has been all but expunged the materia medica. To me, however, it seems that medical men have been too hasty in forming an estimate of its value; and, moreover, I can produce the names of other men of much higher character than myself, whose ideas respecting the scrofularia nodosa are in perfect unison with my own. In the older pharmacopœias, diuretic and sedative properties are ascribed to it. It was considered serviceable in scrofula, whence its name, and was recommended on the authority of many celebrated physicians as an excellent fomentation to piles, malignant tumours, spreading ulcers, and cutaneous eruptions. Within the last few years, Dr. Whistey Stokes, regius professor of physic in the university of Dublin, introduced it to the notice of the profession on account of its great efficacy in curing a malignant disease to which children are liable, generally called "burnt holes," and for which Dr. Stokes proposed the name of pemphigus gangrenosus; in the cure of which complaint it has been found to act almost as a specific. The figwort, in these cases, was employed in the form of an ointment; which last was made in the following manner:—

Take of the fresh leaves of the knotty-rooted figwort;
Prepared hog's-lard; of each two lbs.
Prepared mutton suet; a lb.

Boil the leaves in the fat until they become crisp, then strain by expression.

Long prior to the recommendation of Dr. Stokes, this remedy was in constant use in my father's practice, amongst the inhabitants of the township of Elland, in scrofulous sores, impetigo, and tinea capitis; in all which affections we considered it possessed of very considerable efficacy. In these cases, the parts affected were fomented with a decoction of the leaves and roots of the figwort, or poultices were applied made of the bruised leaves and roots. Amongst the lower orders, where this remedy was alone employed, there are many who can bear testimony to its value; and in such estimation is it held, that it has acquired the pithy epithet of the "black doctor."

In the hedges, woods, and thickets of this parish, the scrofularia nodosa may be gathered in tolerable plenty. It is a perennial plant, of a dark sombre aspect, flowering in July. From its darksome appearance, and its medicinal virtues conjointly, it appears to have derived the appellation given to it above.

Another herb which grows here, and which is in great use, is the malva sylvestris. I believe it to be the first of the four emollient herbs.* It is in a high degree mucilaginous and demulcent; and as such, decoctions of its leaves and roots are beneficially employed in dysentery, strangury, &c. In the form of enema I have known it had recourse to in tenesmus, &c.; and as cataplasms and fomentations in phlegmonous inflammations. It has gained deserved repute with the poor, by whom, in the form of cataplasms and fomentations, it is repeatedly used; and in all the cases mentioned above, I have seen it exhibited by my father with very evident success. About the hedges, road-sides, and in the waste grounds of this parish, it is often seen, putting forth its beautiful purple flowers from May to August. I cannot help remarking, that in no place have I observed this herb in such plenty as in the vicinity of Dublin. The same remarks hold with respect to the althæa officinalis. We cannot apply to the malva what is often applied to noxious weeds, viz., that being the more hurtful they are the more common, for it grows here in the greatest abundance; and would medical men pay that attention even to the three malvæ which they seem to me to merit, I feel confident they would find them gifted with virtues that would amply repay any trouble which might be encountered in gathering them. The whole family, to which this beautiful and useful herb belongs, has several remarkable characteristics, one of which is the disposition of the seeds. I may observe that all the malvaceæ abound in mucilage; and hence they may, in a medical point of view, be substituted for each other with very little inconvenience. The young leaves of the malva sylvestris are boiled and eaten in several parts of Europe.

Notwithstanding that the spartium scoparium still occupies a place in medical authors, it would be unpardonable in me to allow it to pass without notice. And I am the more desirous of dwelling a little upon it, because I think it is now beginning to suffer from the neglect of practitioners both in the town and country. This shrub, the emblem of the great family of Plantagenet, flowers in May and June, at which period its tops may be gathered for medical purposes. As a diuretic in general dropsy, it deserves our highest encomiums; and a better proof could not be afforded of its value, than the numerous successful cases recorded in my father's note-book, in which this lowly, but beautiful, plant is reported to have been given. In my own practice it has also proved extremely beneficial, and I feel persuaded that there are few practitioners in the parish whose opinions do not accord with my own. It is given in decoction, sometimes alone, and sometimes in conjunction with other diuretics.

* The malva sylvestris, rotundifolia, and moschata, and the althæa officinalis, are the four emollient herbs alluded to in the text.

The large family of the compositæ next claim our attention; and here I would mention the arctium lappa, the leontodon taraxacum, tussilago farfara, solidago virga aurea, anthemis cotula, Achilläa millefolium, and one or two species of the pyrethrum. The root of the arctium lappa is aperient, diuretic, and sudorific; and I have often seen its decoction administered in rheumatic, gouty, and venereal disorders. Some physicians prefer the roots to sarsaparilla.

The extract of dandelion is ranked as a diuretic in the pharmacopœia. The experience, however, of a vast body of medical gentlemen has of late years induced the profession at large to a limitation of its virtues in this respect. In this opinion, when speaking of the extract, I in some measure concur; but I cannot accede to any such being broached, as regards the leaves and roots of the fresh plant. All the individuals of my acquaintance, who can boast of any knowledge of the virtues of herbs, agree with me in placing great value on this agent in its fresh state. And if the testimony of medical men be more readily received, there are many who will add their support to the diuretic virtues of leontodon. In dropsies, occurring in the lower walks of life, I have prescribed a decoction of its leaves and roots with extraordinary benefit, and this, too, more especially in cases of ascites connected with hepatic obstructions. It may not be out of place to remark here, that another very humble, but very beautiful herb has latterly been brought forward, as possessed of diuretic properties, by Dr. Walker, senior physician to the Huddersfield Infirmary. I allude to the asperula odorata. I have not had an opportunity of exhibiting it myself; and I ought to add that, in those cases where it was supposed to be beneficial, it was given in conjunction with calomel.*

The tussilago farfara is probably the most common plant we have. It has numerous localities. In the moist shady situations on the banks of the Calder, and other streams, it is met with in unparalleled luxuriance; and on the chalky and marshy soil around the numerous quarries it is more abundant than any other botanical specimens of the district.† Its flowers, which are put forth before the leaf, appear in March and April: they are amongst the earliest of our spring flowers, and, as such, many agreeable associations are connected with them. The whole of the plant is in a high degree mucilaginous. It was in consequence of its flourishing around Elland, that my father was induced to have occasional recourse to it in his practice. It stands recommended in phthisis, coughs, asthmas, and other disorders of the chest. It was, however, in asthma where my father found colt'sfoot tea most serviceable. He himself, being afflicted with this complaint, was in the habit of trying this amongst other remedies, and he was seldom disappointed. It proved useful in allaying the irritable cough attendant on this affection, and as such we were accustomed to recommend it to those similarly afflicted; and I am bound to observe, that however colt'sfoot tea may have succeeded in the hands of other practitioners, it seemed highly suited for the asthmas of this district.

I come now to the solidago virga aurea. In the groves, thickets, grassy lanes, as well as on the heaths around Elland, and elsewhere, it may be gathered in July, August, and September. This plant has long been looked upon as a remedy in debility and laxity of the viscera, and disorders proceeding therefrom. The leaves have a moderately-astringent, bitter taste, which probably led to its employment in the affections alluded to. In many cases of this nature, I have seen it exhibited with good effect. In the wilder and less populous portions of the parish it is often had recourse to by the poor, who are in the habit of collecting and drying it during the season of flowering.

The anthemis cotula has been gathered here, but not in quantity to admit of its use in medicine. It is a very acrid plant, producing vesication even when handled. Gifted with this quality, it might, in places where it grows abundantly, co-operate with the ranunculaceæ. I would press this especially upon the attention of medical men, and ask whether such an indigenous production, if it were only for the sake of experiment, is not deserving their consideration. This blistering property of the A. cotula is attributed by Haller to minute resinous dots which are sprinkled over its surface. In this view all other botanists concur.

The last of the compositæ which are deserving our notice are the Achillea millefolium and the pyrethrum. The first is astringent and aromatic, and stands recommended in diarrhœa, and debility and laxity of the fibres. The Germans consider it a very effectual astringent, and in this character it was administered by Stahl. It may be exhibited in the form of spirit, tincture, or infusion. The first is the best, and most perfect preparation. In diarrhœa it is occasionally used by the inhabitants of this parish.

* Since the above was written, I have been informed by Dr. Walker that he has, during the present year, administered the asperula odorata alone in infusion to a lady, labouring under ascites; which affection it succeeded in removing, after all other remedies had failed.

† It is a fact worth noticing, that wherever the ground has been quarried, large crops of this singular but well-known plant invariably spring up.

The pyrethrum, of which two species are frequent here, is bitter, and accounted tonic, stimulant, and anti-hysteric. As such I have seen it administered in infusion with some advantage. Having extended these observations much beyond my original design, I will now endeavour to bring them to a conclusion. There are many other plants, growing in this neighbourhood, which have been advantageously employed both as external and internal agents. Thus fomentations, composed of chickweed and groundsel, are highly useful in phlegmonous inflammations, and are often substituted, in cases of this nature, for poppy-heads and chamomile. Tea composed of brooklime,* sweet-docks, nettles, &c., is in great demand for the eruptive affections appearing in the spring of the year, and towards the dispersion of which it materially contributes. The lower orders frequently have recourse to this remedy, either at their own suggestion or at that of some practitioner: it serves to cool the system, and, in the language of the humoral pathologists, expels a mass of humours from the body. This tea invariably operates as a diuretic, and often as a diaphoretic.

Many of the cruciferæ flourish here; amongst which I may mention the brassica, cardamine, sinapis, and sisymbrium. The stimulant effects of these herbs depend on the essential oil which they contain, and which is very remarkable in the seeds of the mustard, and in the roots of the horse-radish. Several of them become mild and mucilaginous by cultivation, and then their roots and leaves are used as food. The cabbage and turnip afford examples of this. The antiscorbutic virtues of the cruciferous plants, as well as their power in affecting vesication, would seem, in a great measure, to depend on their essential oil. The members of this family are all innocent. They contain a portion of azote, a principle more peculiar to animal than vegetable life; and hence arises the fœtid smell from these plants when decaying. The fixed oil found in many of them may be extracted by grinding. The seeds of the mustard, after having undergone this process, are stated to have their powers as sinapisms considerably augmented. They are reported to contain sulphur. On the presence of nitrogen seems to depend their power of generating ammonia, when undergoing the putrefactive fermentation. As antiscorbutics, and in dispelling periodic eruptions, they assist the other plants which I have mentioned; and in all likelihood it would be to the advantage of society generally, if the cruciferæ were more commonly employed both as medicines and as food.

* The leaves of the veronica beccabunga remain all the winter, but are in greatest perfection in that season when they are most useful.

I have thus completed my remarks on the indigenous medical plants of this district; and though much more might have been added, without any attempt, on my part, to spin out the paper, yet I have thought it preferable to rest content with the little which has been said. It will be seen how important the subject is, and I trust it will not fail to enlist labourers in the field, where so rich a harvest awaits their enjoyment, and where much remains for the industrious to accomplish. Would physicians write the medical botany of those places in which they reside, how soon should we become possessed of a perfect and highly valuable catalogue of all the medicinal productions of Great Britain! Leaving its utility, in a medical point of view, out of the question, no one will or can deny, that it is fraught with immense interest, in whatever light we choose to consider it, and it only requires but a very moderate share of our attention to discover the mine of riches which it contains. It is not because we are so well supplied with foreign drugs, that we are to despise the productions of our native land; it is not because those foreign medicines are so powerful, that our own should prove inferior to them; but it is probable that if as much attention had been paid to our native sanatives as has been to those imported from abroad, we should now have possessed medicines equally powerful, and with this additional advantage, that they might be produced in the vicinity of our dwellings. Such, however, is the fact, that, with a very few exceptions, we have, for a long series of years, been in the habit of treating native diseases, not by native but by foreign remedies, and this, too, to the exclusion of indigenous productions, which had nothing to condemn them but our own caprice. This being the case, it is to be hoped that these observations will have their due weight in the minds of my medical brethren; and should I but draw the attention of a single individual to this part of my subject, any labour which I may have undergone in bringing it before them, will be amply repaid.

Eiland, near Halifax, May 25, 1841.

ON VACCINATION IN INDIA.

To the Editor of THE LANCET.

SIR:—If the following few facts observed in vaccination are by you considered of sufficient importance, I beg you will give them a place in your widely-circulated Periodical.

They are from notes which accidentally escaped the destruction of many other papers and were collected between the years 1825 and 1829, while I was vaccinator (or superintendent of vaccination) over

a very extensive territory. My operations were, however, limited to the province between Bombay and the Government dominion, and the mountain range and the sea; for I found ample occupation in this the Southern Konkem. The numbers vaccinated varied; latterly it was above thirty thousand in the year. In fact, it became so great, that there was no limit to the number that could then be vaccinated, except the two natural ones—of the amount of means, and the number protected from variola. My establishment consisted of four native vaccinators, four apprentices or juniors, and six peons. The duty of the latter was to attend to the instructions of the vaccinators and apprentices qualified to act by themselves, to give notice of vaccinating days to the villages, and assist in collecting the children. No compulsion was permitted. At first I found the Brahmins very generally opposed to it, affirming that it was not in accordance with their religious tenets, and the Wanees, or higher merchant class, followed in their wake. The Moussulmins again opposed it on the grounds of fatalism; but being constantly amongst the people, reasoning with them, and showing the good effect resulting from the operation, their prejudices gradually gave way, and the Brahmins finally became amongst the most eager to accept the proffered boon.

Indeed, and it may show how, in a brief space of time, religious prejudice even may be placed in abeyance. When I first began my wanderings amongst them, if I touched a Brahminee child, the child, and also the person holding it, if it were in arms, required ablution; and long before I quitted the appointment, I have often been wearied with the numbers of these children put into my arms for good luck.

The appointment of four vaccinators, with an establishment as above-mentioned, was made, I think, in 1822 or 1823, by that talented and excellent man, the Honourable Mountstuart Elphinstone, then the enlightened governor of Bombay. In 1824 it was made a condition of holding the situation that the medical officer (by rank an assistant-surgeon) should be a linguist in one, at least, of the native languages. The districts were far too large (I never was able to attend to above a third of mine); but if the success of the experiment was in other divisions at all commensurate with that in the Southern Konkem, it has seemed to me that only two reasons could be advanced for not increasing very largely the number of appointments; the one financial, the other the paucity of medical officers in the establishment. The scale of remuneration fixed by Mr. Elphinstone's government was liberal, but not too high, for the appointment was a very laborious one: and in a country where there are no places of accommodation, as inns, &c., involved great exposure, and was attended by very considerable expense. The salary of 600 rupees, six hundred per mensem, was reduced in 1829 to 350 rupees; to which is to be added subsistence-money, a net pay of two rupees per diem.

Some inquiry was attempted now some years ago in Bombay, relative to vaccination, and I handed in these notes, as conveying something new, to add to the mass already known; the expected information, however, was not obtained, and these were laid on the shelf. My last batch of periodicals gives me a review of the report of the vaccination section of the Provincial Medical Association; and as there are some facts in these notes which are not noticed there, and seem not known to the profession, I have got them returned, and now transmit them to you. I remain, Sir, your obedient servant (and a subscriber to your LANCET of many years),

ALEXANDER DUNCAN, Surgeon.

Dapoolie, Bombay Presidency,
April 14, 1841.

P. S.—When I was at the neighbouring hills, I was informed that there was difficulty in producing vaccine there, and that the vesicle was very generally smaller than in the low country, and with a more confined variola. It was so in one of my children. Is this the case in other elevated regions, as Switzerland? I hope some of your readers will be able to inform us of this. The three principal stations in this finest climate in the world, are Potacamand, Kotagharry, and Connoor, at altitudes respectively of about 7400, 6570, and 5886 feet.

First. Vaccination varies no less than three days in the time required for the perfecting of its vesicle. It may be a day in advance of its proper period, or one or two in retardation. I have been at considerable pains to ascertain these points fully. In the first case there could be no doubt of accuracy—there was the vesicle perfect before its time. In the second case, although it might be accounted for by a supposed retardation of absorption of the virus, still that this was not always the case was manifest by its occurrence in whole families, as brothers and sisters, or as grandmothers and their descendants (in one case including the great-grandmother), vaccinated at the same time and place as hundreds of others; thus showing it to be constitutional and hereditary. The retardation is more frequent than the acceleration, and of one than of two days. The lymph from either produces in others the usual phenomena.

Second. Vaccinia and variola are compatible with each other, until the period of maturation of either, and then the other decays along with it. Thus, the contagion of small-pox may have been imbibed for days prior to vaccination being practised,

and yet this latter may amount to a full security against its principal evils. After I had clearly discovered this law, had seen the variolous eruption proceeding and the vaccine progressing, in several cases, each disease unaffected by the other, until the conclusion of the eighth or beginning of the ninth day, of the latter I was then able to give a favourable prognosis, even in severe confluent cases; i. e., when the vaccine was in such time that its eighth day should supervene ere the desiccation of the variola should commence. The progress of the small-pox was invariably arrested in such case, and the eruption died away, like any other cutaneous disease that had sustained a cure; and there was either no fever, or a very slight one, arising from the extensive irritation the system had previously suffered. It had, in fact, lost its specific character of variola, and all danger was over.

I witnessed this result in a considerable number of cases. In a young Brahminee (about sixteen or eighteen) the variola was a severe confluent, and her parents and friends, and even a skilful vaccinator, were fully persuaded she must die; as five of her brothers and sisters, and a mother and her two children, had recently done in this same house. I pointed out in the midst of the variola on the arms, the vaccine vesicles distinctly pitted in their centres, and told them these would save her; that the symptoms would be as those they had seen in the others till the end of the eighth day from vaccination, or beginning of the ninth, and that from that time she would recover; and, to their astonishment, it was so. Her face was tender, and scarred at first; but some months afterwards a very great improvement had taken place, and I was not without hope that the scarring would in time entirely disappear.

Failure with Dry Lymph.—I have no doubt that failures from the use of dried lymph are very generally owing to the minute quantity laid on the glass, or point. The quantity that might be amply sufficient for the production of several vesicles, if used in its fresh liquid state, may not when dried up be sufficient for one. For, first, it is next to impossible to introduce the whole of it. Secondly, it may not be so immediately or completely absorbed. Thirdly, a portion, though not the whole of it, may be deteriorated and inert; and hence there may not be a sufficiency for the production of even one vesicle, whereas if a larger quantity were laid down, there would be more to work upon, and a better chance of success. This I know, in an extensive experience, that I failed very frequently with the small, and very rarely with the large quantity.

As to the best vehicle for softening and diluting the dried lymph (or the scab), whether water or milk, and whether cold, hot, or tepid, I do not think even this has been sufficiently tested. I am of opinion that tepid is the best state, and milk the better vehicle.

It is said by able physiologists that the cuticle should be slightly raised in vaccinating, but no blood ever be drawn. Here is theory, but it is at variance with the success of practice. The most expert vaccinators I had ever seen, both in speed of operation and success in result, were the four senior natives in employment where I was appointed superintendent. I had tried my hand on a good many hundreds before, but these men beat me out and out; so I set to work and soon equalled them. I have frequently timed ourselves, and including delays for the flow of lymph, and opening new vesicles, not hurrying, but working deliberately, we made six and a half punctures in the minute. Did we avoid drawing blood? Assuredly not. We did not wish to see it stream, but we liked to see a drop or two; and this I know, that the experiment with the cuticle only slightly raised, or the cutis very slightly penetrated, were not attended with that success in our hands that the deeper puncture was. It seems to have escaped attention that this deeper puncture cuts more absorbents, and passes the mouths of more also than the more superficial, and thus affords a better chance of immediate absorption. Whoever has advanced the opinion that a very slight puncture by the poisonous fang of a serpent is of necessity more deadly than a deep one? Just so in this; should the blood flow freely, it may wash away the matter. It does not always, but it may; but never mind its appearing; a moderately deep puncture affords the better chance of success, but not a straight downward one, it should be oblique or sloping.

There is a tact in vaccinating. No new hand had the same success as the old. The new took more time, were at much more pains, but for all this they failed much more frequently. We usually made three punctures with one charge, keeping the point of the lancet sloping downwards. A superintending surgeon denied the possibility (and he had vaccinated largely himself—here, again, was theory—for he had not tried it) of raising three vesicles with one charge. I showed it to him in practice. We rarely failed. Sometimes, indeed, only two came forward, and at times the system would not take the disease. It was usual to make three punctures in each arm of those above six months old, and four in grown-up people. Whenever the arm was done, pretty strong pressure rapidly over each puncture with the shoulder of the lancet was made; this certainly tended to repress bleeding, and probably to promote absorption.

There is a beauty in the vaccine vesicle, *of degree*. Take a hundred arms, with their complement of vesicles, and all perfect; out of these, some few, say ten or twelve,

will be more beautiful than the others; and compare these, also, with each other, and a few will be found more beautiful than the rest. I would select the most beautiful to vacciuate from, and yet I know not if it be of any consequence. In taking the lymph, the lancet was entered at the base of the vesicle, and worked so as to cut the cells all round at the base, but leaving the cuticle entire, except where the lancet entered. The first lymph had usually a little blood with it, and was put aside; then it came quite pure, and continued to flow for some time. We had to wait now and then a minute or so to give it time. It goes on secreting very rapidly when thus treated; and this secretion is proved by its effects to be equally efficacious with the lymph that was contained in the vesicle when first opened.

Vaccinating from 1200 to 3600 in the month, in a rugged country of rock and hill, and ravine, and petty villages, it was out of the question that separate and minute instructions could be given to the individuals. General rules were therefore given, and these were generally, certainly, if not always, attended to. Thus, as it is well the arm, when vaccinated, should not be washed for a day or two, nor rubbed nor bruised for the whole period; and as a favourite mode of drying children is to seize them by the arms and swing them round, so the rule was laid down that no ablution of a vaccinated person should be made for eight days. The rule was attended to; it came to be thought a necessary thing, and I know no evil that arose from it, but am certain that in very many cases it did good, by saving the arms from being bruised.

Modifying Causes.—It has not appeared to me that the season has any decided effect on the vaccine; but there are circumstances which have. If the person from whom the lymph is to be taken has travelled so as to be suffering from fatigue, or is oppressed by the heat of the day, or by hunger, or by fear, either total failure may occur, or the result may be an impure disease from a pure one (i. e. pure till that moment). I do not say the result will always be such, I know it is not so; but I have seen enough to know there is a risk, and a considerable one, too; I except that sort of dread that is manifested by kicking and roaring, unless very long-continued. But everything that exhausts the cerebral energy, has seemed to me occasionally to produce a deterioration of the vaccine secretion. It is a subject worthy of the fullest investigation. Perhaps many of the failures so often occurring may be traceable to this source; i.e., from a perfect vesicle lymph may have been used, taken off under circumstances of cerebral distress, and give rise to spurious disease. One day I rode into a small village, and found the whole of the vaccinated with spurious vesicles. I went into the neighbouring one, and here all were perfect: they were vaccinated on the same day from one child. The vaccinator was pressed for time, and having finished the latter hasted away, in the heat of the day, and without giving the child time to rest and to take food, to the other.

Efficacy.—The efficacy of vaccination in the Southern Konkem was perfectly satisfactory. When small-pox appeared in any village, and the vaccine was sent thither and fully established, then the former was completely arrested. Of this the people were latterly fully aware. In the Sawunt territory, the Muharatta doctor of a large straggling town ridiculed the idea of our preventing the contagious variola by our process, and that he would show us how to produce the proper preventive disease. I desired him to wait for two months after I was done with the place. He then inoculated above two hundred, of whom some had swollen arms in consequence, and some had an eruption of miliary-looking vesicles, chiefly in the arms, but not one had small-pox, or anything like it. The man very feelingly remonstrated with me, that I had taken the bread out of his mouth; for if small-pox had broken out in that town,* then most of those, in whom we *had put our charm*, would have been brought to him, and inoculated at from half a rupee to three rupees, and sometimes five or more each.

Inoculation of small-pox was extensively practised in all the Southern Konkem. In the northern and central parts the common potters were the performers; and hence the inoculated went by the name of potters-pock; in the southern part I found the common doctors perform it; it is most clumsily but efficaciously done. A portion of skin below the elbow on the palmar aspect is abraded with a piece of broken earthenware, and then a small quantity of cotton well imbued with the virus is tied on firmly. It very frequently leaves a large permanent scar.

This practice must be of considerable antiquity, and may have originated amongst themselves. But that is conjecture. I was unable to trace it to any date or source; but it is managed with great practical good sense, such, indeed, as was never in force in our own country; *for it is not permitted to be done in any village until small-pox has first appeared therein*; and hence the disease is not carried the length and the breadth of the country by inoculation, as it too often was with us; and they are very strict in preventing communication with infected villages. Such, indeed, are placed in quarantine—a quarantine that is founded on opinion, and very rarely, I am confident, knowingly trans-

* I had him instructed in vaccination, and informed him where he could always get a supply of vaccine, if he by chance had it not.

gressed. The disapprobation that would universally fall on the transgressor, would render his life irksome to him. I was once solicited to get a man hanged, as the English put people, even Brahmins, to death in that way for murder, for an infraction of the rule. Serious, indeed, were its consequences. He had unwillingly (I believe) come in travelling into an infected village and slept there, and then came into a Brahmin's in another: it was one of those houses, or accumulation of houses under one roof, where many families dwell. Five young persons of one family, and the mother and two children of another, fell victims to the disease at its outset. The complainant, the widower, and near relative of the others, urged that his guest's conduct had been as criminal as that of a slayer of men, and pathetically mourned the havoc that ensued from it.

I mention this merely to show the strong opinion that is held on the subject; of course I could give no redress, or inflict any punishment. The spread of the disease was speedily arrested by the rapid and extensive introduction of the vaccine; and here I had several opportunities of observing the fact already mentioned, of the two diseases proceeding simultaneously till about the close of the eighth day of the vaccine, when both begin to cease. It was here that the confluent case occurred in the Brahminee young lady mentioned above.

I may mention, that it is of some consequence in vaccinating that the touch should be perfectly sharp; failures are more frequent when it is not; even those sharpened at our own stones do not answer perfectly; they are sharp, but not so smooth as out of the hands of the makers; they do not last well, and they soon rust. It would seem that any roughness in the instrument the poisoned wound is made with, is against the absorption of the poison; the best for the coast are Stoddarts' Wootz, or Indian steel lancets; each of them is worth at least three or four of any other kind; they are so hard that they keep their edge long, and they do not rust near so rapidly. This steel was imitated, but the imitation was faulty; I detected it in use, and made the Stoddarts acquainted with the fact, i.e. of its not being the same, and not at all so good. It would seem, they supposed, they could form an equal compound to the original by combining the various ingredients which chemistry had discovered it to consist of; as this was not the case, they, of course, were to abide by the original. The silver steel does not answer at all well on this coast; it blackens and rusts very fast.

P.S.—It being now proved that vaccinia is only variola, modified by passing through the genus taurus, perhaps, also, the transit into a milder and more rapidly-progressing disease, may not the explanation of the two running their course together for a time be, that as the modified runs its course so much more speedily than the original, so, having once taken effect, its preventive power is shown in destroying the virulence of the original at the time of its becoming perfect?

Vaccinated in 1828 *in the Southern Konkun.*

	Males.	Females.	Total.
January	1430	1374	2804
February	1348	1205	2553
March	874	875	1749
April	2196	1039	3235
May	1264	1033	2296
June	813	822	1635
July	642	578	1220
August	1201	1150	2351
September	1635	1531	3166
October	1774	1549	3323
November	1839	1745	3634
December	1860	1756	3616
Total	16,876	14,706	31,582

ON THE

INJURIES TO HEALTH

OCCASIONED BY

BREATHING IMPURE AIR IN CLOSE APARTMENTS.

By Dr. Elmore.

Notwithstanding the various inventions and improvements which distinguish the age we live in, it is lamentable to observe what little attention has been paid to the ventilation of apartments in which we are destined to pass the greater portion of our lives, and in which a constant and well-regulated supply of the element we breathe is so essential to mental enjoyment, as well the sustention and prolongation of life.

This inattention can only be accounted for either by the want of education in the major part of that class of persons who call themselves builders, and who content themselves with executing their work, and getting it off their hands with as little expense and loss of time as possible; or an apprehension, on the part of those who aspire to the more elevated designation of architects, that the introduction of anything new would expose them to the charge of a want of taste, or of that acquaintance with the style of the ancients to which it is the fashion so strictly to adhere, imitation being, in their opinions, more deserving of commendation than originality of design, or a desire to meet the improvements of the age; and fashion, of more importance than health. If they construct our doors and windows in so superior a manner as to exclude every possible par-

ticle of air, they flatter themselves with having attained an advantage to which the inhabitants of ancient Greece and Rome did not aspire; and when they arrive at that degree of perfection which will enable them to exclude this element altogether, they will, no doubt, be entitled to an increased meed of praise from medical practitioners, heirs-at-law, undertakers, &c. They should, however, recollect, in their apparent anxiety for imitation, that the ancient architects of warmer climates did not overlook the necessity of a free admission of air; and also, that a constant supply and free circulation of this element is as necessary for sustaining life, as a given quantity for the combustion of the fuel we require to warm our apartments: our builders, nevertheless, only provide for the latter, as if the former, although the more important, was of minor consideration; or, that they conceived the chimney-draught sufficient for both purposes, when in reality it does not answer that for which it is principally intended; as by far the greater portion of the heat generated in our open fire-places is carried up the chimney, by sharp currents of air from occasional openings of doors, or such crevices as it may force its way through; being, moreover, frequently productive of serious bodily injuries, particularly to those of delicate frames; while it cannot be sufficient for the purposes of wholesome ventilation, this air being colder than that already in the room, is consequently of greater specific gravity, and must form a lower stratum, not unfrequently felt by those placed round the fire, suffering from an undue proportion of heat at one side and of cold at the other.

It should also be borne in mind, that the openings of our fire-places being seldom more than three or four feet from the floor, the upper stratum of air which we breathe is neither removed or purified by this undercurrent, and must, from being breathed over and over again, be productive of most prejudicial effects, and that the contamination of this atmosphere is considerably augmented at night by the combustion of lights. It has been ascertained that the quantity of air breathed by an ordinary-sized person is about two thousand cubic feet per hour; and that two mould candles consume as much of the oxygen of this air as a human being; and that the nitrogen and carbonic acid gas which remain are peculiarly inimical to animal life, and that when carried up by the currents occasioned by combustion and respiration, they form an upper stratum where they remain, and must be repeatedly inspired before they make their escape into the chimney, the only ventilating flue with which our houses are provided.

It should also be observed, that the heat thus generated is in proportion to the quantity of oxygen abstracted from the atmosphere, which enters into combination with the carburetted hydrogen of the flame of candles, coal-gas, oil, or other inflammable matter, from which light is produced. That every cubic foot of carburetted hydrogen consumed unites, on an average, with two cubic feet of oxygen (that portion of the atmosphere required to support animal life); and that the product of this combustion is about two and a half inches of water and one of carbonic acid gas, which, when inhaled in its pure state, proves instantly fatal; and the greater the proportion we inhale, in addition to the vapours evolved from the lungs and skin, the more pernicious the effect.

Supposing, for example, that the perfect lighting of an ordinary-sized apartment requires fifteen cubic feet of carburetted hydrogen per hour, this would form about a pint and a half of water, and fifteen cubic feet of carbonic acid gas; for whenever carburetted hydrogen gas is burned with oxygen, or atmospheric air, these are the products of the combustion, whether the carburetted hydrogen is obtained from wax, tallow, oil, or coal. If, therefore, this lighting continues in an unventilated apartment for seven hours one gallon of water is produced, the greater part of which will be deposited on the walls, windows, furniture, polished metal or other cold surfaces, with which it comes in contact; and to some articles of this nature it is known to prove highly prejudicial, in addition to the injury to health occasioned by an increased quantity of moisture, mixed with the air we breathe. As one of the principal functions performed by this air for the preservation of health, is to carry off with it a considerable quantity of vapour, in order to prevent its undue accumulation in the lungs, it is, therefore, evident, that after it has been already so loaded it cannot properly perform these functions, and that consumption and other complaints are thus frequently induced.

The prejudicial effects of carbonic acid gas (which is the same as the choke-damp of mines) as well as the nitrogen of the air, which is set free by the abstraction of the oxygen (and amounts in quantity to four times that of the oxygen), are well known, and ought by all possible means to be provided against. This has been attended to within the last few years in our public hospitals, and the mortality in consequence considerably decreased; and likewise in several of our manufactories and public establishments, where the diseases generated by the number of persons congregated in such establishments have been proportionably diminished. In the House of Commons, also, where hundreds of members, with hundreds of candles burning at night, tended so much to vitiate the atmosphere, important improvements in lighting, as well as ventilation, have been recently made; but

in our domestic establishments little or no attention has been paid to this important subject, and the foundation of a variety of diseases must be the result, particularly from the foul air breathed at balls, or other crowded assemblies.

The confinement of air in our churches and places of public worship must also be highly prejudicial, as we are frequently exposed to an atmosphere, on entering one of these edifices in the summer months, ten or fifteen degrees below that of the external air, independent of the stagnant state in which it has been allowed to remain during a whole week, often vitiated, in a greater degree, by the gaseous matter evolved from human remains; and even in private houses much inconvenience is experienced from the stagnant state of the atmosphere in close and gloomy weather, as the entire basis of ventilation depends on the possibility of producing a constant circulation as well as supply of this element. Close stoves are also objectionable when made of iron, and heated to a certain temperature, as oxide of iron is produced by the powerful attraction of that metal for oxygen, and the formation of ammoniacal gas by the mixture of the nitrogen which remains, with hydrogen, acting on our bodies and olfactory nerves.

But if stoves were constructed of masonry throughout, as in many other countries, or of fire-tiles, or porcelain plates, imbedded in mortar, with well-regulated flues, they would be far preferable to open fire-places; this substitution of imperfect conductors of heat being not only consistent with the soundest principles of economy in the preservation of heat, and its more uniform distribution through apartments, but more conducive to health than bringing the air in contact with iron stoves or pikes. Our desire, however, for polished metals in almost every department of our domestic appendages, united to the interests of the furnishing ironmongers, to whom these matters are usually left, must operate, in no small degree, in determining the prevailing taste for this commodity. Porcelain stoves may, nevertheless, be made sufficiently ornamental for those who prefer health to fashion; and when apartments are provided with well-regulated apertures and flues through their ceilings into the adjoining chimneys, to carry off the air vitiated by respiration and combustion, a sufficient degree of heat may be obtained with a sufficient supply of that element, without which it is impossible to maintain health.

The healthy appearance of those who pass the greater part of their time in the open air, sufficiently indicate its advantages. Armies are also well known to have greater numbers on the sick list when well housed, and what is considered comfortably settled in quarters, than when exposed in a campaign to the vicissitudes of the season for weeks and months, without any other covering than the canopy of heaven, or occasionally of a tent or hut, or the shade of a tree. These facts ought to satisfy us that we should admit the air as freely as possible, and provide, at the same time, for its escape through the ceilings of our apartments at all seasons of the year, as the temporary and often imaginary inconvenience of a little cold, when compared with the decided disadvantages of breathing impure air, is by far the lesser evil.

Where ventilation in large establishments or public buildings can only be obtained by artificial means, it is produced by pumping air in, or drawing it out, by a fan worked by steam, or other adequate power, and affording it the means of free circulation, either cooled, heated, or in its natural state, through well-regulated apertures in the floors, walls, or ceilings; and in coal-mines by flues or shafts, in which constant currents of air are maintained by the combustion of fuel or coal-gas. This system might also be easily introduced into houses already built by means of the existing chimneys, but with still greater facility, if our architects and builders were to direct their attention to these points when erecting new ones.

The importance of this subject has been frequently pointed out by scientific men of considerable eminence, without attracting that attention which would have been the means of preventing many persons from being imperceptibly hurried to an untimely end. It is, therefore, to be hoped that the powerful engine of the press will continue to lend its aid in exposing these evils, until it impresses upon the public mind, and more particularly upon our architects and builders, the urgent necessity of providing against them. Is it not possible to make the heat produced in the lighting of apartments available for their perfect ventilation? If any of these gentlemen succeed in so doing, they will be entitled to greater gratitude, for this achievement in the purification of an element so essential to the preservation of our lives, than any claimed by those heroes whose victories have contributed so much to the miseries of the human race, and the destruction of the human species. But we ought not, perhaps, to be so much surprised at the slow march of intellect in this respect, when we find so many centuries to have elapsed before it was so generally admitted, as at present, that pure water, another element bountifully supplied by nature, is preferable to any other beverage for insuring the health and happiness of mankind; and where we have so many temperance societies, and other advocates, for impressing upon the minds of our fellow-subjects the necessity of becoming converts to the imbibing of this element, in its pure state, ought we not with still greater reason to endeavour to make a similar impression as to the advan-

tages of inhaling, with equal purity, the lighter fluid, of which we stand so much more in need, and which we so much more frequently require?

THE MIASMA OF AFRICA.—NIGER EXPEDITION.

At the Royal Institution, on Friday evening last, Professor Daniell read a paper "On the Spontaneous Evolution of Sulphuretted Hydrogen in the Waters on the Western Coast of Africa and elsewhere." He commenced by observing, that this subject was now interesting on two accounts: 1, because it would recall to the members of that institution the experiments of Sir Humphrey Davy on the subject, and which led him to advise the adoption of ship protectors; and, 2, in consequence of the Niger expedition, fitted out to visit and endeavour to introduce civilisation on the western coast of Africa. The effect produced on copper sheathing by the presence of sulphuretted hydrogen in the waters on that coast, was, he premised, well known to every one informed respecting vessels visiting it; and it was a fact that a cruise of nine months on the western coast of Africa injured the copper sheathing of a vessel as much as four years' wear in any other part of the world. The lecturer showed a piece of sheathing taken from the bottom of a Government frigate that had not been many months on the African station, and also a piece from the *Royal George*, sunk at Spithead, and which had been under water sixty years; the former was eaten through in very many places, and so thin all over that he might push his thumb through it, while the latter was tough, and in excellent condition. His attention had been directed to the subject by the Lords of the Admiralty sending him ten bottles of water, from as many different places on that coast, extending from 8 deg. north of the Equator to 8 deg. south, to analyse, and to report on the component parts thereof, and the accompanying table was the result:—

	Sulphuretted Hydrogen.		Saline Matter.
	Cubic Feet.	Inches.	Grains.
Sierra Leone, per gallon	6	18	1696.0
Volta	6	99	2180.0
Bonny River	1	21	1788.0
Mooney	..	..	2104.0
Gaboon	..	..	2169.0
Lobez Bay	11	69	2576.0
Congo River (mouth)	0	67	188.0
Congo River (35 miles inland)	..	..	8.0
Bango	4	35	2736.0
Lagos	14	75	1920.0

All the bottles were hermetically sealed, and he had no doubt the water was in every way as good as when taken from the rivers. On drawing the cork, he was immediately struck with the smell of sulphuretted hydrogen, and adopted the general idea that it arose from animal and vegetable decomposition, but it had since appeared to him that such was not entirely the case. The gas extended a distance of 15 or 16 deg., and in some places as far as 40 miles to sea, covering, therefore, a space of 40,000 square miles. Now, what could the origin be? He thought that it arose from the action and reaction of vegetable and animal matter brought from the interior by the rivers upon the sulphates in the sea-water. With this idea he gathered last autumn some leaves from a shrubbery and put them into three jars; into one of which he poured some plain New River water; into the second, some of the same water in which three ounces of common salt had been dissolved; and into the third, the like water, in which some crystallised sulphate of soda was dissolved. To the covers of the jars he fixed inside some litmus paper, and placed them in a cupboard, the temperature of which varied from 70 to 100 or 110 degrees. The effect was, that in the first the litmus paper was perfectly white, and the smell by no means unpleasant; in the second the paper was quite white, and the smell similar to that of a preserve; but in the *third jar, in which a sulphate was present, the paper was nearly black, and the stench was horrible and nauseous in the extreme, as every one knew the smell of sulphuretted hydrogen gas to be.* Now sea-water contained sufficient sulphates to produce this effect under peculiar circumstances. But a more interesting part of the subject was the miasma, so injurious to life, on the marshy shore of Western Africa. Some persons said that if science cannot point out a remedy, it is useless to investigate the causes, but he did not so think; if science could not point out a remedy, still it could point to something as a palliation of the evil. The presence of the injurious gas was easily tested by the roughest hand, so that places in which it abounded could be avoided; and if imperative duty rendered it absolutely necessary to go to those places, then plentiful fumigations of chlorine gas would effectually destroy the sulphuretted hydrogen. The effect of this gas was not only visible on the western coast of Africa, but in many places elsewhere, although not to so great an extent. Might not the jungle-fever of India, the periodical fevers of New York and Charleston, in America, and the minor diseases on the coast of Essex, be traced to be effects of this deleterious gas? It was a well-known fact, that the ships in the mouth of the Medway consumed more copper than other ships. Chlorine gas, then, destroyed

the injurious gas, and it was easily made, and the materials very cheap; the Government had plentifully supplied the African expedition with the materials necessary for the most perfect chlorine fumigations; and he had the pleasure of believing that his report, founded on the analysis of the waters submitted to him, and the precautions taken, had imparted confidence not only to the gallant men who composed that expedition, but also to those who had interested themselves in its welfare, and who had been actuated by the most Christian spirit. He hoped its success would be commensurate to its deserts.

REMARKS ON THE "CASES" RECENTLY PUBLISHED BY DR. EPPS.

To the Editor of THE LANCET.

SIR:—Every individual who sends forth the speculations of his brain to the public, unless he have taken the precaution not only to divest them of every thing really or apparently crude, but also to express them sufficiently in detail, that conviction of their accuracy will, as it were, be at once carried home to the mind of the reader, must expect his remarks, before they pass on to be forgotten, to be subjected to a little wholesome criticism by those who are somewhat sceptical of the reality of modern-made miracles. That Dr. Epps, whose article on the "heal-all" properties of the arnica montana occupied so much space in the last Number of THE LANCET, did not employ, perhaps, that degree of judgment which he is wont to use before arriving at his apparently hasty conclusions of the powers of the remedy in the cases he has recorded, seems to me to be probable; I therefore purpose, with your permission, to notice his cases *seriatim*, somewhat after the manner of THE LANCET in the "olden time." It is unnecessary, of course, to apologise to Dr. Epps for doing so; he has published his cases, an act which of itself invites to criticism.

Case 1.—"Mrs. H. fried a pancake," and the result proved what a mess she made of it. "The fat spirted into her eye," and she had all the characteristics of intense inflammation. She applied to a surgeon, who ordered several remedial means, but it is not stated that the patient *used* them; at any rate, it is *certain* she did not use them for more than twenty-four hours, for Dr. Epps saw her about one, P.M., the following day. He gave her three "globules" of *aconite* "to subdue the fever;" four globules of arnica in divided doses; and a "liquid," with which the eye was to be kept constantly moist. On the following day (the second of *his* treatment, the Doctor's dates are a little wrong), the eye was "much better." The day after "almost well;" and the day after that "quite well:" a result which, I doubt not, would just as quickly occur in another case, *cæteris paribus*, without the arnica, if the remedial means which a judicious surgeon would order were steadily persevered in. I must dissent altogether from the opinion that the arnica cured the patient in the case related, and ascribe the good that resulted jointly to the topical application of the water, and the beneficent aid of the *vis medicatrix*.

Cases 2 and 3 are very similar, being cases of injury to the head from a blow. The patients presented no unusual symptoms, the only thing uncommon being the treatment adopted. The chief point of interest which the cases appear to me to illustrate is the one well known to all physiologists, that our bodies *naturally* revert from a diseased to their normal state, and that they do so sometimes despite the follies of physicians—"the fallacies of the faculty"—and the most absurd or injurious treatment.

Case 4, in which the cornea was lacerated by the toe-nail of a child, is one in which clearly no credit is due to the treatment employed. The Doctor, I imagine, draws much too largely on the credulity of his brethren, in supposing they will believe that the laceration was cured by the administration of his "globules." Evidently, so far as my humble judgment goes, the credit of the cure should here again be ascribed not to the employment of the Doctor's globules, but to the topical application of the *water*, and the very kind assistance of the *vis naturæ*.

Case 5 is interesting, inasmuch as it shows there is danger in dancing even with those who are called "good society," for "*Miss* E. H. ran a splinter into her foot." The splinter went in at the bottom and came out at the side (pierced the foot), "and," says the Doctor, very gravely, "it was necessary to *remove* the *sub*jacent soft parts to extract it." Dr. Epps immediately got astride his hobby, and, on reaching home, says, he gave the young lady his "globules;" bathed the foot in hot water, in which forty drops of the "tincture" had been previously introduced; and, after bathing for five to ten minutes, a poultice, on the surface of which about *ten drops* of the arnica tincture were dropped, was applied. On the Tuesday following the foot was well, and the cure most innocently ascribed to the arnica! Yes, no sooner had the Doctor's "globules" entered the young lady's system, than with as much activity as the "Wizard of the North," they immediately began to close or *renew* the "soft parts," which the Doctor had previously separated or "removed."

In Case 6, Mrs. W. received, during pregnancy, a kick on the abdomen; the period ought to have been stated. She suffered much pain as the pregnancy advanced, and after delivery, also, there was considerable swelling and pain at the lower part of the belly. The Doctor hesitated in his diagnosis till he heard of the "kick," when his mind was made up, and he administered to the patient *three globules of aconite;* and, *after four hours, two globules of arnica*, continuing one globule of arnica every day, for *five* days, when the patient was well.

Case 7.—A little boy broke a lucifer-match in his ear, in attempting to remove some wax. Considerable inflammation followed, and the night before Dr. Epps was consulted was one to the patient of "continued agony." Three globules of arnica, however, in four spoonsful of water, giving two spoonsful immediately, and one every four hours, with a poultice, having five to ten drops of the tincture dropped on it, applied to the ear every eight hours, cured the child by the fourth day. Nothing is said about the broken portion of match being extracted; and whether the Doctor means it was left in, or extracted by himself, or by the arnica, we have no means of knowing.

Case 8.—Mrs. Ubsdile, *aged sixty*, jammed her fingers on *Saturday*, and she went to the Doctor in great agony. *An effusion of matter* appeared to surround the nails. Aconite and arnica were ordered as in the preceding cases, and on the *Monday* following the *pains* were gone, &c. Hitherto I have been accustomed to believe that inflammation could not, in a patient sixty years of age, go on to suppuration in the brief period of two or three hours; but if the Doctor have correctly reported the case, the inference to be drawn certainly is, that such a change does occur in the above brief period. The loose manner, however, in which this case, as well as the others, are recorded, will not justify me in coming to such a conclusion.

Case 9 was not treated by Dr. Epps with the arnica, and therefore ought not to be cited by him, on hearsay evidence, as a proof of the healing powers which arnica possesses.

But arnica, in the hands of Dr. Epps, seems to be an universal panacea for the ills of life, a sort of elixir vitæ, an absolute heal-all; for not only are we to believe it to be a certain remedy for local injuries and constitutional disease, curing, we are told, with equal facility broken heads, jammed fingers, small-pox, and corns, but it is also to become an indispensable article at the toilet.

The doctrine of *similia similibus*, of which Hahnemann is well known as the parent, as applied to disease, is either true or false. If true, it ought to be received and acted on, its author rewarded as a benefactor to his species, and his name held in reverence by a grateful profession; but if false, let it, as it deserves, at once be scouted, and disease treated as it has hitherto been, on the seemingly sound basis of logical deduction. It is much, however, to be regretted, that amongst all our corporate medical institutions not one of them can come forward, when a question of this kind presents itself, to investigate philosophically the point at issue, and to direct the public in their dubious way. If the constitution of our corporations were ever so correct and just, their neglect of this, and similar questions of importance, would justify the placing the government of those bodies in other hands. I am, Sir, your obedient servant,

WM. HEMPSON DENHAM.

June 6, 1841.

INSTRUMENTS FOR THE

EXTRACTION OF TEETH.

SUPERIORITY OF PROPERLY-CONSTRUCTED FORCEPS OVER THE KEY.

To the Editor of THE LANCET.

SIR:—Observing that in a recent Number* you have given insertion to some remarks upon the key-instrument, I am induced to hope that your valuable columns may be equally open to the advocacy of the forceps.

By his own statement, your correspondent appears to have suffered fully enough from its effects, to have induced him to abandon the use of the key entirely, and yet he still recommends the employment of one which he considers to be of a peculiarly advantageous construction; and after detailing the mischievous results of misplacing the fulcrum, tells us, that when the points of the claw are nearly horizontally opposed to the fulcrum and its centre of motion, on turning the key the tooth is moved out in the direction of the socket, very little force being necessary, as the great lever power of the instrument is then at its best advantage. In this he is undoubtedly correct, provided that the position and shape of the fangs be favourable; or to write more plainly, provided that the fangs be quite straight, and that the spread of the fangs at their extreme points bear an exact proportion to the size of the tooth at its neck; otherwise, the movement in the proper direction of the socket, as shown by him in fig. 2, cannot be obtained. Now I would inquire, firstly, from what indications is the operator to ascertain that the tooth to be extracted is thus favourably shaped? And, secondly, will the number of teeth thus formed be found to bear any proportion whatever to

* No. 10.

those in which the fangs diverge to an extent sufficient to upset the possibility of effecting a movement in the direction of the socket with any such instrument as the key, the action of which is simply rotary, the gums and alveoli forming the basis of the fulcrum? The presentation of those favourable circumstances required to secure the safe removal of a tooth by means of the key being of rare occurrence, and no possibility existing of ascertaining the fact beforehand, can the operator be justified in subjecting his patient to such unnecessary contusion and laceration of the inflamed gum, such risk of serious injury to the alveoli, when he may have at his command instruments with which, avoiding all unnecessary disturbance of these structures, he may take a firm and effectual hold of any tooth, acquiring a fully-sufficient lever power for its removal (if it can be removed at all), the application of which he can control, according to the circumstances as they become developed? Such is the action of properly-constructed forceps—I repeat the words "*properly-constructed*;" for it is notorious to those who use the forceps, that the best which can be obtained ready-made from the instrument-makers are so imperfectly constructed, so ill adapted, as to be totally unfit for the purpose—they are mere bone-crushers; and to this fact is owing the little estimation in which these useful instruments have hitherto been held. Every professed operator should shape his own forceps. Let him procure them in a soft state from his instrument-maker, and then taking a tooth of each description, of average size and shape, adapt the beaks most accurately to the neck, taking especial care that the inner surface is so hollowed out, that fitting just clear of the enamel, the requisite pressure may be applied to the neck, without danger of crushing the crown. With the exception of a pair of hawk's-bill forceps, useful for the extraction of the anterior molares of the lower jaw, which should be pointed so as to fit into the cleft in the neck of those teeth formed by the divergence of their fangs: the beaks of all the forceps used should be as broad as possible, so as nearly to encircle the neck of the tooth. If it be matter worthy of consideration to the general practitioner, he may dispense with that extensive variety of forceps required by the practical dentist, and content himself with the following set; viz.

No. 1.	A pair straight handled, for the removal of the incisors.			
2.	Do.	beaks slightly curved	„	bicuspides of upper jaw.
3.	Do.	„	„	right molares do.
4.	Do.	„	„	left do. do.
5.	Do.	more curved	„	dentes sapientiæ do.
6.	Do.	hawk's-bill, the beak somewhat rounded	„	bicuspides of lower jaw.
7.	Do.	the beaks more pointed	„	anterior molares do.
8.	Do.	straight handled, the beaks bent nearly at right angles	„	right posterior molares do.
9.	Do.	„	„	left do. do.

The dentes sapientiæ of the lower jaw may generally be most easily removed by an elevator; but in some cases a pair of forceps nearly similar in form to Nos. 8 and 9, but of somewhat less size, would be found useful.

The application of forceps so constructed, is far more simple than that of the key. No slipping of the fulcrum is to be apprehended, no judgment exercised in the choice of a claw. The gum is first to be separated from its attachment by a lancet slightly concave on its inner surface, which renders it capable of being passed closely round the neck of the tooth. That pair of forceps adapted to the tooth about to be extracted is then to be placed at the edge of the gum, and gently forced upwards in the direction of the tooth, until the beaks come into close contact with the alveolus. At this point the tooth is to be grasped, and either by slight rotation, or by lateral movement, according to the description of the tooth, accompanied by traction applied in the direction of its axis, the operation will be easily and expeditiously completed.

The advocates of the key-instrument may probably be disposed to inquire in what manner forceps are to be applied in cases where the crown of the tooth has been entirely lost on one side, a sufficiency remaining on the other to offer a hold for the claw of the key? My reply is, that in such cases the removal of a small portion of the gum, as well as of the free edge of the alveolus, effected with a sharp instrument, will afford a firm grasp for the forceps, and will be attended by infinitely less risk and pain than would follow the exposure of these inflamed and highly-sensitive parts to the degree of pressure inseparable from the application of the fulcrum.

I shall have much pleasure in permitting your correspondent, or, indeed, any other member of the profession who may feel an interest in the matter, to inspect the forceps which I have here endeavoured to describe; as well as some keys which I formerly used,

with the fulcrum so adjusted as to revolve at the back of a steel plate, which remained stationary, and afforded some protection to the gum.

I have no intention of claiming for myself any merit whatever for the construction of the instruments which I have now in use. They were made under the direction and from the patterns of those used for the last twenty years, by Mr. Charles Bromley, of Southampton, my instructor in dental surgery, to whom I believe the credit of their invention to be justly due. I am merely desirous of bearing testimony to the decided superiority of such instruments over every kind of key-instrument which has fallen under my observation. I do not deny that a tooth may be extracted safely and expeditiously with the key, but I contend that the proper use of the forceps is more easily acquired, and that their application is safer, infinitely less painful, and more than equally effective. I have the honour to be, Sir, your obedient servant,

W. H. LINTOTT.

24, Mortimer-street, Cavendish-square,
June, 1841.

DISEASES OF THE TEETH

OF PERSONS LIVING IN

DAMP, LOW PLACES.

To the Editor of THE LANCET.

SIR:—As you inserted my last communication, on the importance of pathological information to dental practitioners, you will confer on me an additional favour, by inserting the following remarks.

From extensive observations in different localities, I have ascertained that in all low, damp places, and near the margin of rivers and lakes, the inhabitants have generally very bad teeth, arising from the deranged state of their digestive organs. The teeth have the appearance of having been acted upon by weak acids, being somewhat dark and transparent, or rather translucent, owing to the lime being gradually removed from them. They are also very brittle, and ultimately crumble to pieces. In the early stages of this disease, great complaint is often made of pain whenever the temperature of the atmosphere becomes suddenly lower; and this arises from the enamel being so much thinner than it ought to be. The consequences, noticed above, might be prevented by the use of alkaline mouth-washes, and in attending to the dyspeptic symptoms, the practitioner being regulated in his treatment by whatever may have caused derangement of the digestive organs. It is now some years since that I first stated my own observations on this disease of the teeth, in a conversation with the late worthy and talented Dr. Alderson, of Hull, in answer to a question he put to me, "Why the people of that town had generally such bad teeth?" The substance of that reply I have already given, but the facts on which I based my opinion must be alluded to. It will, however, be important, in order to elucidate the subject, and render my facts more interesting, that I should furnish some notion of the topographical and geological peculiarities of the locality in question. Hull is a very flat, low-built town, situated on an alluvial deposit, principally composed of a stiff, tenacious clay, which retains moisture, and which is, therefore, the greater part of the year very damp. The town itself is intersected with canals, which connect the different docks; on one side flows the narrow, sluggish river Hull, and on another side is the broad, low bank of the noble Humber, so that the town is surrounded with water, and the atmosphere is the greater part of the year in a humid state, and very cold. If there is any disorder in Hull which may be considered *endemical* it is dyspepsia, with its numerous auxiliaries. Of course, the consequences of stomach derangement will be more or less injurious to the mouth, in proportion as they are aggravated or mitigated by the filthy or the cleanly habits of the people. The working classes of Hull have generally very spongy gums, with copious deposits of tartar, as well as bad teeth; but I will not say that this arises altogether from uncleanliness, as it may be partly owing to their unnutritious diet, &c.

In order to satisfy my own mind, I visited many places built on the banks of rivers, or situated in low fenny and marshy districts, in order to ascertain whether the results I had noticed in Hull, Gainsborough, Boston, &c. &c., were owing to any accidental circumstances, or were constant effects induced by the causes previously suggested. My former conclusions were confirmed, and ought, from the constancy of the facts, viz., that in such localities there is great stomach derangement and bad teeth, to be considered correct, if we admit the accuracy and importance of the principles of inductive philosophy. The geognostic and other local peculiarities in many of these places were similar to those observed at Hull—cold and damp soil and a humid atmosphere, and all those who resided near the water had bad carious teeth, with dyspeptic complaints.

So much for the direct proof; but there is another circumstance to be mentioned which may be considered indirect evidence, and which I consider to be somewhat interesting, in connection with my present communication; namely, that in such towns as Doncaster, Gainsborough, Lincoln, &c. &c., the people residing near the rivers in these respective places, had worse teeth than the other inhabitants who resided in drier locali-

ties, and more distant from the water; precisely indicating in the strongest manner what was observed when the Asiatic cholera was scourging this and other countries—that the unhealthy districts were those near to the rivers, and in low, damp localities, and that in all such places the disease was most fatal. I am, Sir, with great respect, yours truly,

J. L. Levison.

25, Upper Temple-street, Birmingham, May 28, 1841.

EXTRACTION OF TEETH.

To the Editor of The Lancet.

Sir:—I read with much pleasure the paper of Mr. Stevens on the Tooth-Key Instrument, in your last Number, and can from twenty years' experience in military and provincial practice, in both of which dental surgery is a part of the surgeon's duty, confidently assert that the principles he lays down are of great importance; in fact, most of the failures with the key-instrument, I am confident, arise from ignorance of the resolution of the mechanical forces. I have acted upon the principles he so well states for many years; and I made many years ago some diagrams which are essentially the same as his, and to demonstrate the same principles. I showed them to a dentist, who informed me that Bell had already given the same information to the profession in his works. I have not seen Mr. Bell's works, but as I supposed my informant to be accurate in his statement, I was unwilling to build upon another man's foundation, and remained silent on the subject. I would beg leave to state that the rules I give to my pupils in using the key are to employ the smallest claw that will fairly embrace the tooth; to keep the elbow fixed, and to make the turn with the supination of the hand, keeping the forearm in a line continuous with the shaft of the instrument. These cautions, with care, common mechanical skill, and some anatomical knowledge, will, if the instrument is well constructed, prevent many of the cruel operations that patients sometimes undergo.

Tooth-drawing is a severe operation, and any one who can suggest a means of rendering it less painful and more successful deserves the thanks of the public, and such are due to Mr. Stevens, if his remarks are original; if not, the subject is well worth urging upon the attention of the profession. I am, Sir, your obedient servant,

J. Houlton.

London, May 31, 1841.

NAVAL ASSISTANT-SURGEONS.

To the Editor of The Lancet.

Sir:—If you deem the following worth a place in your popular Journal, you are at liberty to make any use of it. I am, Sir, your very humble servant,

J. Tweeddale, M.D.

87, St. Martin's-lane, May 25, 1841.

At the annual general meeting of the officers and supporters of the Royal Naval School, which was held at the Horticultural Society's room, 21, Regent-street, on last Wednesday, to receive the report of the council of administration for the past year; the Right Hon. Sir George Cockburn, president, in the chair; a notice of motion was read by the secretary, placed on the book last year by myself: the object of which was to secure for the children of assistant-surgeons of the royal navy the benefits of the institution. And which motion was rejected, and rejected, too, by a large majority, without so much as an attempt to impugn the arguments that had been advanced in its favour. Their exclusion from the benefits of the school, cannot but be considered as at once impolitic and unjust: impolitic, because the greater the number of pupils at the full yearly cost of 25*l.* per annum, the better for the school; unjust, for there is no person on board ship, whose services are more valuable in time of need than those of the assistant-surgeon. The council are accustomed to congratulate themselves on the increase of the number of pupils, yet oppose that increase by refusing to admit the sons of the members of a most responsible branch of their profession. And why? because they are not permitted to mess in the ward-room. The three hundred and fifty assistant-surgeons of the navy, both by their elementary and professional education, as well as from their acquirements in general literature, are equal to medical men in civil life, and rank with them as gentlemen. But it is too well known they labour under great disadvantages, and their discomforts are very glaring: instead of receiving the respect due to them from their profession and standing as gentlemen, their mess-place is that with the midshipmen from the age of fourteen to the mate, all so much younger than themselves; where, from morning till night, nothing but jarring and continued noise is to be heard. They turn in to their hammocks at night; rise in the morning; dress by the side of their chest; they can never enjoy sufficient quietude for study to improve themselves in their profession, or to keep up that which they had already acquired; which is of much greater importance to the service than it is generally allowed to be, and would be of great advantage in cases of accident and sickness. An assistant must now continue to serve for ten

or twelve years in this condition, before he can possibly look forward for promotion to be raised to the rank of surgeon: in large ships he may have a small dispensary or sick bay for study; but these are luxuries he enjoys only occasionally; and must likewise walk on the lee-side of the quarter-deck along with his messmates.

When it is considered that assistant-surgeons in the army are entitled to all the privileges and indulgences of officers of higher rank, it could not but be admitted that assistants of the navy were equally entitled to similar indulgences in their profession. By an order in council, dated Jan. 23, 1805, naval assistants were declared to have rank as subalterns to lieutenants in the army, equal to lieutenants in the Royal Marines, and as assistants in the army: they both received the same education, and were, in every respect, equals, with the exception that the scale of education required for the navy was rather superior to that required for the army. The latter are, immediately on entering the service, admitted to all the privileges of their rank; why, then, should those privileges be denied the naval assistants? The greatest boon which can be conferred on them, is at once to admit them to mess with the officers in the ward-room.

Having very arduous and important duties to perform, their situations should be made as comfortable and respectable as possible. When men-of-war carry out troops, the army assistant messes in the ward-room along with his own officers, and the ward-room officers of the ship, whilst the naval assistant messes in the cock-pit with midshipmen. It is no wonder then that young gentlemen should prefer the army, where proper respect is paid to them from their first entering the service; and from these circumstances there is great reason to believe that there is a general feeling against the medical service in the navy. The consequence of this state of affairs is sometimes destructive to their moral habits; some fine young men having taken to drinking, and lost all sense of propriety. The remedy for these evils is to allow the assistant to mess in the ward-room or gun-room, and to enjoy the rank and privilege of their rank as given to them by the order in council.

THE CERTIFICATE SYSTEM.

COURSES OF "STUDY" (SO CALLED) OF THE EDINBURGH AND LONDON COLLEGES OF SURGEONS.

To the Editor of THE LANCET.

SIR:—I have read with much astonishment, in the account given in THE LANCET of the 17th of April, of the conference held on the subject of medical reform between the president and vice-presidents of the Royal College of Surgeons of London, and the delegates from the associations for promoting medical reform, the following statement, said to have been made by Mr. Guthrie, one of the vice-presidents of the London College, viz., that "an attempt had been made to assimilate the curricula of the London and Edinburgh Colleges; but the latter would not consent to so long an hospital attendance, by six months, as the London College deemed requisite. They were satisfied in Edinburgh with a lower standard of acquirement; hence the want of agreement between the two colleges." I cannot doubt that the report of Mr. Guthrie's statement is in some degree inaccurate, because he must have known that not only "an attempt had been made to assimilate the curricula of the London and Edinburgh Colleges," but that the attempt had been so far successful, that in the year 1838 a minimum course of study was arranged and determined upon by delegates from the three Royal Colleges of Surgeons of London, Edinburgh, and Dublin; that this minimum course, after having been sanctioned and approved of by the three Royal Colleges, was ratified by the signatures of the delegates of the three bodies; and by this agreement, so entered into in this solemn way, twenty-one months attendance upon an hospital was mutually arranged as the minimum period. Mr. Guthrie must also have been aware that "the want of agreement between the two colleges," did not arise from a difference of opinion in regard to the extent of hospital attendance necessary for candidates for surgical licences and diplomas, but that a difference took place between the London College on the one part, and the Colleges of Edinburgh and Dublin on the other, in consequence of the London College having refused to adhere to the agreement that had been formally entered into by the three bodies. Mr. Guthrie, or the reporter of his statement, has committed another inaccuracy, in stating that "they (the Edinburgh College of Surgeons) are satisfied with a lower standard of acquirement" than the London College. Lest your readers should be misled by this statement into the erroneous belief that the Edinburgh College of Surgeons are in the habit of granting licences to young men to practise surgery, on a standard of acquirement lower than that of the London College, I have to request that you will have the goodness to insert in your widely-circulated Journal, the following comparative table of the courses of study required by the two colleges, from a perusal of which your readers will be enabled to judge for themselves of the accuracy or inaccuracy of the statement on this subject made by, or attributed to, Mr. Guthrie:—

EDINBURGH COLLEGE.	LONDON COLLEGE.
Preliminary Education.	
Examination in Latin.	None.
Elements of Mathematics.	None.
One Course of Mechanical Philosophy—60 Lectures.	None.
Period of Professional Study.	
Twenty-seven months at a School of Medicine, of which eighteen in winter sessions.	Nominally four years, but deduct twelve months of vacation—three months in each year, and six months practical pharmacy, which may be taken away from an hospital or school, leaving thirty months at a school.
*Anatomy.**	
Two Courses, of six months—each 110 Lectures.	Three Courses of seven months each—140 Lectures.
Physiology.	
One Course of six months—110 Lectures.	None, separate from the anatomical courses.
Practical Anatomy.	
Twelve months, with Demonstrations.	Twenty-one months, 300 Demonstrations.
Chemistry.	
One Course of six months—110 Lectures.	One Course of six months—70 Lectures.
Practical Chemistry.	
Sixty Lessons in classes not exceeding twenty-five students in each.	None.
Surgery.	
Two Courses of six months—each 110 Lectures.	Two Courses of six months—each 70 Lectures.
Clinical Surgery.	
Six months, three meetings per week, in addition to observations made at the bedside of the patients.	Not mentioned.
Practice of Medicine.	
One Course of six months—110 Lectures.	One Course of six months—75 Lectures.
Clinical Medicine.	
Six months, three meetings per week, besides observations at the bedside of the patients.	None mentioned.
Materia Medica and Pharmacy.	
One Course of six months—110 Lectures.	One Course of six months—70 Lectures.
Practical Pharmacy.	
Six months, or an apprenticeship.	Six months.
Midwifery and Diseases of Women and Children:	
One Course of three months—60 Lectures.	One Course—70 Lectures; practical instruction.
Medical Jurisprudence.	
One Course of three months—60 Lectures.	Twenty-five Lectures.
Hospital Attendance.	
Twenty-one months.	Thirty months.
Age.	
Twenty-one years.	Twenty-one years.

* It is to be observed that although more lectures on anatomy are apparently required by the London than by the Edinburgh College, there would be a fallacy in assuming that 420 lectures are actually devoted, according to the London regulations, to anatomy, strictly so called, as physiology is entirely committed to the lecturer on anatomy; while, by the Edinburgh regulations, the elaborate and minute explanations connected with that science are committed to a separate teacher, and are given in a separate and distinct course of lectures.

It ought, perhaps, to be mentioned, that in the Edinburgh School of Medicine the most stringent regulations have been enacted, and are strictly enforced to secure *bonâ fide* attendance on the lectures, hospital, &c.

With regard to the length of time required by the Edinburgh college to be passed in attendance upon patients in an hospital, I have to remark that the college have always been decidedly of opinion that no advantage whatever is derived by young men from such attendance, until they shall have acquired some little knowledge of the principles of medicine and surgery, by having attended lectures on anatomy, physiology, and chemistry, and at least one course either of practice of medicine or surgery; as previously to such attendance they are considered totally unable to appreciate the effects of the remedies employed, or to understand the symptoms, diagnosis, prognosis, &c., of disease; while, on the contrary, by attendance upon hospital practice at too early a period of their course of study, students are apt to mis-spend their time, and to acquire idle and irregular habits. Twenty-one months of the period of attendance required by the College of Surgeons to be spent at a school of medicine, are reckoned by them as much as is expedient or proper. The Edinburgh College are of opinion, too, that more real advantage is derived by the pupils from their attendance upon the Edinburgh Hospital for twenty-one months, than from a longer period in other hospitals and schools where much less attention is paid to clinical instruction.

By inserting the foregoing statement in your Journal, you will, in my opinion, be only doing an act of justice to a body which has on all occasions evinced its anxiety to increase the acquirements of its licentiates, and to improve generally the state of medical education. I am, Sir, your obedient servant,

SCOTO-CHIRURGUS.

Edinburgh, May 5, 1841.

BETHLEM HOSPITAL.

REMARKS OF

"A LOOKER-ON"

UPON THE MEDICAL REPORTS OF

DRS. MONRO AND MORISON.

To the Editor of THE LANCET.

SIR:—Your last Number conveys to your readers the welcome truth, that the seals are removed from the proceedings of Bethlem Hospital, and the stores of information which its annals ought to contain laid open to public inspection. However persons may differ in opinion as to the treatment of the insane, all must rejoice in this concession to public opinion; but, at the same time, it would seem that the governors have not acted fairly towards their medical officers in publishing their reports, without giving them any previous intimation of their intention to depart from their ancient custom, which was not, as you suppose, to *circulate* the reports amongst the governors generally, but to read them to the scanty audiences assembled at the quarterly courts, and then consign them to oblivion.

The reports now published were presented at the quarterly court held in January, and are forwarded (especially the report of Dr. Monro) upon the ancient precedents so successfully ridiculed by "PHILANTHROPOS." The resolution to publish the reports was not passed until the April court, and ought to have been prospective only. It would, therefore, be ungenerous to criticise these productions with severity; but, at the same time, there are some observations arising out of them which ought not, in justice to the physicians themselves, to be passed over in silence.

Whilst giving publicity to the reports, the governors have omitted to publish (with one exception) the tables annexed to them. This is unjust to both physicians, but especially to Dr. Morison, whose report is far superior to that of his colleague. For example, in speaking of the subject of restraint, Dr. Morison says, "In Bethlem, the quantity of restraint imposed upon the patients in a state dangerous to themselves and others is very limited, as will appear in the weekly returns *laid before you now in a very much improved form.*" These returns are not published with the report, and it is impossible without them to form a correct judgment of the value of this announcement. It appears from the letters of "PHILANTHROPOS," that during the year 1836, "the number of patients at various periods under restraint was 108, being within a fraction one-fourth of the whole number, and the number of instances of restraints in the register 495." "That many patients were confined for several days, some for weeks, and it would seem a few for months consecutively, &c." No physician of character or experience would, in the year 1841, in any document intended for the public eye, call such a quantity of restraint "*very limited;*" yet from the omission of the returns alluded to by Dr. Morison, the profession are unable to judge of the quantity of restraint to which he affixes the term "very limited," and of the progress of moral treatment in the management of the hospital. This omission is more unfortunate, from the well-known opinion of Dr. Morison in favour of restraint, expressed as it is in the report now under consideration, as well as in the one to which I have heretofore alluded, and which is again confirmed by Dr. Morison.

Other important tables are also omitted. It is evident, from the latter part of Dr,

Morison's report, that he has appended to it some valuable tables, pointing out the various forms of the disorder, its causes, and duration; together with the ages of the patients, the number of relapses, &c. &c., in 562 cases under treatment on his side of the hospital. All these tables are suppressed; why or wherefore, no reasonable man can divine. The governors may rest assured that the public will not be satisfied with imperfect publications: the odium attached to partial publication is far heavier than the odium attached to entire secrecy. The governors must close and lock up their doors altogether, or they must throw them wide open; if they attempt a middle course, they will soon have them torn from their hinges.

Again: from the only table published with the report, it appears that the number of cases in the year 1840, amongst the curable patients, was to the number of curable patients admitted as 173.308, or 56.67 per cent.—an unusually large average, and stated so to be in Dr. Monro's report; in truth, the ordinary average does not exceed 50 or 52 per cent. Now, Dr. Morison says, "From the table presented to the court, it appears that of 562 cases of insanity *under my care*, 393, or very nearly *seventy per cent.*, have been discharged well." Now, assuming this statement to be correct, this conclusion inevitably follows (the number of patients being equally divided between the two physicians), that the cures on Dr. Monro's side cannot exceed 35 per cent., that is to say, one-half of the cures effected by Dr. Morison, as this, the whole number discharged cured, *communibus annis*, is 52 to 59 per cent. The number cured by Dr. Morison *communibus annis* is 70 per cent., *ergo*, the number cured by Dr. Monro *communibus annis* is 35 per cent. This cannot be; some fallacy must exist some where, but it cannot be detected without the assistance of the tables. How unjust towards Dr. Monro is their exparte publication!

It is to be hoped now that the attention of the governors is called to the subject, that these errors will be corrected, and that the future reports of the physicians will be worthy of their own high reputation, and of the splendid establishment to which they belong; and it would be well if they adopted the old maxim, that unity is strength, and made their report jointly instead of separately. Rome was not built in a day, and Bethlem cannot be remodelled in 365 days; but I am greatly mistaken if the governors are not so inoculated with the spirit of improvement, that that system of management will daily become more perfect, and the reports of 1846 announce the number of cures to be nearer 80 per cent. than 50. I am, Sir, your obedient servant,

A Looker-on.

June 14, 1841.

BETHLEM HOSPITAL.

To the Editor of The Lancet.

Sir:—The manner in which you exposed and removed some of the abuses in our profession, through your publication of them in The Lancet, assures me that some information conveyed to the public relative to this place would be also of great service; and trusting that you are, sir, actuated by a sincere and disinterested desire to do good, I hope you will kindly receive that as my excuse for the liberty I am now taking, and permit me to remain, Sir, your obliged servant,

Robert Dawson.

Bethlem Hospital, June, 1841.

First. On the reception of a patient into Bethlem, his being taken before the committee for examination (as to his fitness) is to him a cruel mockery: he is never allowed to speak, nor is a question put to him. He is placed at the door, with a keeper at each side of him, and if he offer to say a word he is immediately dragged away by them, as was the case only yesterday (June 4). All that concerns him is left entirely to the apothecary or steward; from which cause many patients have been told by their keeper, in a few days after admission, "Why, there seems nothing the matter with you! there was no need of sending you here;" and if the patient is *quiet*, and his friends are not very anxious for his detention, he may get out in a month or six weeks. Of this sort several instances have occurred within the last twelvemonths, one of a youth of fourteen years of age! and at this moment there is a respectable man, of seventy-seven, from Lewes, in Sussex, who has been detained several weeks with nothing but the imbecility of age as the excuse.

Second. On the patient's entrance, he is at once ushered into one common yard, and indiscriminately mixed with from seventy to eighty persons of all sorts, incurable, dirty, furious, idiotic, clean, and respectable, are all huddled together, and greeted with the idle curiosity and troublesome importunity of the old stagers for tobacco or snuff, to whom the fresh inmates are a little amusement at first, not unfrequently coming from, or knowing some of, their neighbourhood. After staying in this yard for an hour and a half, or so, he enters his ward, and dines with from twenty to thirty, off a wooden plate, with a *bone* knife and fork; and in rather more than half an hour he is again returned to the yard, to feel his helpless misery. At five o'clock the patient is again returned to his ward for his supper, and then allowed to amuse himself till eight, when he goes to bed: on doing which he receives an aperient powder, and is immedi-

ately locked into his cell. By three or four next morning this operates freely, for which he is provided with a wooden bowl; but what is his disgust and indignation, on being unlocked at six or seven, to find he has to empty and clean this bowl, and then directly wash his hands and face in it, and wipe them on a towel that has been used the previous six days, by the before-named twenty or thirty men of his ward. This nasty, stinking, filthy necessity, the first morning of his being here, may be repeated, through a repetition of the powders, twice or thrice, within a few days; and that to some, who all their lives previously had a proper ewer and basin in their bed-rooms, and a servant to attend them, when they have taken medicine.

At eight o'clock the person receives, in a wooden bowl with a wooden spoon, about a pint of water-gruel, and two ounces of dry bread, on a table, without any cloth, and where his fellow-prisoners will contend for a little bit or drop more, with all the hunger and ferocity of wolves; and if he has been unable to eat his supper over night, it is watched for with the cunning of foxes, and if not given away by him (?), his four ounces of bread and pat of butter will find many customers in this establishment (*of twenty-five thousand pounds a-year*), ready to give threehalfpence down, or twopence in trust, till the next visiting-day.

Before or after breakfast he is expected to make his bed, and sweep out his room; and at ten o'clock he is again turned down into the yard till one, when he is summoned to his dinner of a bowl of rice-milk and a slice of bread and butter, and then again quickly put in the yard till five, as on the previous day. About six hours daily is he compelled to spend in the yard, unless it is very wet; and then he stays in one of the wards, with those of two other wards, generally making from fifty to sixty, in the gallery.

The sources of amusement are very few: cricket often in the summer is played by a few, to the great danger of the rest in the yard, from the ball. Trap-bat very seldom; cards constantly, by a very few; and, by a smaller number still, dominoes and drafts. The great resource to the intelligent is reading; and there is a library in the hospital for the use of the patients. But very many of the men waste their time, and confirm their disease, in utter idleness; as no steady means are adopted to employ and exercise the drones and mopes, save working at the wheel to draw water! which they *hate*, and shuffle from the moment the keeper's eye is off them.

The attention of the physician and apothecary is deplorably deficient, until it is too late to do any good, as the beginnings of disorders are never noticed; and there now lies in the dead-house a respectable glazier, from the Borough, who, though so ill as to take no food hardly for ten or eleven days before, was not seen by Mr. Thomas till three days previous to his death, and his friends were not told of his danger till too late to see him alive.

Any attempt to speak to the committee or visitors in any but flattering terms of the place is immediately suppressed, and the patient told that his so doing will keep him here. The utmost diligence is exercised to prevent any letter from going out or coming in, that the steward or apothecary does not like, and every effort is used to keep the public ignorant of the medical treatment of the patients.

*** We publish this letter just as it was received; but as we do not know, and have not the opportunity of ascertaining, what are the personal circumstances under which the writer has obtained a knowledge of the facts which he alleges, and under which he now offers them to public notice, some statement on these points should have been appended to the communication.

LUNATICS.

An Account of all Monies received for Licences by the Clerk and Treasurer of the Metropolitan Commissioners in Lunacy, and of all Monies Received and Paid out of the Consolidated Fund to the said Clerk, from the 1st August, 1839, to the 1st August, 1840, specifying the several Heads of Expenditure, as required by the Act 2 and 3 Will. IV., c. 107.

To Cash received by order from the Treasury	£1936	6	0
To Cash received for Licences	894	15	0
Balance due to Commission on this Year's Account.....	449	5	0
	£3280	6	0

By Balance due to Commission, 2nd July, as per Account rendered to the Lords of the Treasury	£595	4	
By Clerk and Treasurer, one Year's Salary	400	0	0
By Rent of Office, one Year..	50	0	0
By Hire of Carriages for Visitations, one Year	134	9	2
By Petty Disbursements, Postage, and Carriage of Parcels	159	12	4
By Stamps for Licences.....	20	0	0
By Fees to Legal and Medical Commissioners	1921	0	0
	£3280	6	0

Ashley, Chairman. H. H. Southey.
J. Bright. J. R. Hume.
T. Turner.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 8, 1841.

Dr. Williams, President.

On the Action of Poisons. By James Blake, Esq.

This paper contains a confirmation of the author's researches on the action of poisons, the greater part of which have already been before the public. After some remarks on the manner in which these researches should be conducted, the author observes, that the present question contains two elements, distinct in kind, namely, a dynamical and a chemical problem. The former referring to the place where a poison acted, the latter to the molecular changes which the presence of the poison in the blood gives rise to in this fluid, or the tissues with which it is brought into contact. The former question came before him at present. It had formerly been shown that sufficient time always elapses between the application of a poison, or its injection, and the first symptoms of its action, to allow of its being carried to the brain; and also, that contact of the poison with a large surface was not sufficient to give rise to any general symptoms as long as its diffusion through the body is prevented. The author now proves that in every instance the rapidity of action of a poison is in proportion to the rapidity of the circulation. With a view to this proof, experiments have been performed on different species of animals, in which the time required for the blood to circulate from one part to the other differed greatly. For, should a poison which acts on the nervous system only produce symptoms when applied to the nervous centres, it must require a longer or shorter time before it shows evidence of its action, according as the circulation is more or less rapid, or the course which the poison has to run be longer or shorter. Experiments were performed by the author on horses, dogs, fowls, and rabbits; these animals offering extreme differences as regards rapidity of the circulation of the blood. It is shown by experiments that a substance injected into the jugular vein of a horse, arrives at the capillary terminations of the coronary arteries in ten seconds. Of a dog in twelve seconds. Of a fowl in six seconds. Of a rabbit in four seconds. Having made these statements, the author points out from experiments, that in these animals the time required for a poison to act is in proportion to such rapidity of the circulation; but, also, that in every instance sufficient time elapses between the application of a poison and the appearance of the first symptoms of its action to allow of its reaching the nervous centres. The author concludes by noticing some facts which tend to establish a connection between the chemical composition of substances and their physiological action. The chemical action on the blood of such salts as destroy the irritability of the heart; the analogous effects of salts of the same base; the analogous actions of isomorphous substances on the animal tissues, and the difference between the effects produced by poisons, according as they are derived from organic or inorganic substances.

Mr. Ancell rose, not so much for the purpose of remarking upon the paper before the society, as to express his opinion, after some consideration of the subject, of the importance of these investigations generally. It was curious to reflect that in many instances modern discoveries confirmed the deductions and revived the conjectures of the ancients. Take the modern theory of the nervous system. We found the microscopical observations of Ehrenberg, Valentin, and others, as to the structure of the brain, the tubular form of the nerves, and the provisions made for the supply of blood to every part of the nervous centres, as well as the experiments before the society, all tending to give plausibility, at least, to the opinion originally entertained, that the animal, vital, and natural powers resided in vaporous exhalations from the blood. Adhering more closely to modern language, he might say that for both the animal and organic powers we were thrown back upon the blood. In Liebig's "Organic Chemistry" we found this beautiful principle laid down—a molecule set in action by any power was capable of communicating that action to any similar molecule brought into contact with it. Liebig availed himself of this principle to explain contagions, and, in particular, that of small-pox. What was this but a recurrence to the ancient opinion? In the oldest description of small-pox extant, the disease was referred to a poison acting as a ferment in the blood, and was compared to the action of yeast upon sugar. Liebig more accurately compared the morbid action to the action of yeast upon liquids containing sugar and gluten. His work had gone the round of criticism, and was not only tolerated but lauded. Syncope occurring in persons in health was formerly referred to a coagulation of the blood in the vessels. A member of the society, who could not for one moment be suspected of shallow reasonings, employed the remarkable expression—"a tendency in the blood to coagulate without actual coagulation," in explanation of certain symptoms. These illustrations might be greatly extended. He had employed such only as occurred to him at the moment, for the purpose of showing that there was an inclination to humoral doctrines at the present time. It had often been remarked, that the discovery of the circulation of the blood had not been fruitful in results; one reason

for which was, that physiologists were still ignorant of the rapidity of the blood's motion. In their experiments they had overlooked minute intervals of time, and came to erroneous conclusions. He could not help regarding the discovery of Hering, of Stuttgard, confirmed by Mr. Blake, the author of the paper just read, that the blood makes its circuit in a few seconds, as inferior to none in importance, save that of the circulation itself. It was necessary to be aware of the rapidity of the current as well as of its course, as such discovery must correct some most serious mistakes. Attempts were sometimes made to discourage these investigations, upon the principle that they were not practical in their tendency. He held that they were pre-eminently practical. In proof, he begged leave to refer to the experiments recently published by Andral and Gavarret. Take, for instance, chlorosis. These gentlemen found that the symptoms of this disease bore an exact relation to the proportion of red corpuscles in the liquor sanguinis. After administering iron, the proportion of red corpuscles increased with the increase in the proportion of that element of the blood, and at the same time, and in an exact ratio, the symptoms of the disease diminished. These facts were demonstrated by exact experiments; and thus the practice established more than two thousand years ago in this disease, was both confirmed and explained. There was another fact, which, although seemingly trivial, might be cited in illustration of the practical tendency of these experiments. It was well known by many experienced practitioners, that the citrate of potassa was a more efficient saline medicine than the tartrate of soda, in the treatment of inflammatory and febrile affections. That the more expensive could not properly be substituted by the cheaper salt. He was sure of the fact from his own observation, and Mr. Blake's experiments explained why it was so. The salts of potassa acted directly upon the irritability of the heart. The salts of soda had an effect totally different from this sedative action. It appeared to him that the word action, in the present state of science, was required to be employed in a new sense. We could no longer refer the operations of life to action on the large scale, by which he meant the action of the capillary vessels. It was to molecular action that vital changes belonged. These molecular actions took place in the blood itself, as for instance, between the elements of the red corpuscles and those of the liquor sanguinis; and again, reciprocally, between the elements of the blood and the more stationary elements of the tissues. Mr. Ancell then apologised, on the one hand, for occupying so much of the attention of the society, and on the other for treating so important and so extensive a subject so discursively.

Dr. Addison spoke at considerable length on the subject. He complimented the author on the value of his experiments, and remarked, that the results arrived at would, at least, disprove the opinion formerly entertained, that poisons acted in two distinct and direct modes on the system; the first being by absorption, the second by the sympathy which was supposed to exist between the part to which the poison was applied and the general system. The latter having had its origin in the observation of the rapidity with which the general effects of poisons were produced. The experiments of Mr. Blake showed that a very short space of time was required from the application of a poison, to the time of its general diffusion through the body. It was by no means decided, however, because a substance was found in the carotid artery four seconds after it had been inserted into the jugular vein, that it had in that time gone the entire round of the circulation; for the rapidity with which a substance was diffused through the entire mass of blood, did not *necessarily* imply a corresponding rapidity in the circulation.

Mr. Blake remarked here, that he had made the same observation in his former papers, but that this fact did not at all interfere with the results.

Dr. Addison continued—He thought Mr. Blake's experiments proved too much; for, if the rapidity of the action of poisons was always proportionate to the rapidity of the circulation, and if they acted at one uniform time on the capillaries, it would follow that all poisons would act precisely in the same time; an opinion which he believed was not correct. In Mr. Morgan's and his own experiments, it had been found that when the woorara poison was introduced into the jugular vein, it required from forty to forty-five seconds to affect the animal. If Mr. Blake's experiments were correct, all poisons should act on the same animal in the same space of time; if he said time was required for this action to be developed, then there was an end of the argument. If Mr. Blake's experiments were correct, they proved that all poisonous agents acted through the circulation alone, and showed that the opinions originally entertained and upheld by Sir B. Brodie, that some poisons acted through the circulation and some by sympathy, were incorrect. Dr. Addison then entered into the detail of some experiments which he had performed after the plan proposed and followed by Mr. Blake; but as the plan was not carried out in some of its more important parts the experiments failed, and need not be recorded. Dr. Addison also referred to some other experiments which he, in conjunction with Mr. Morgan, had performed on two dogs, by making a communication between the circulating system of each, by uniting the carotids of the animals; and remarked, that so

much injury might be inflicted on the tissues of the animal experimented upon, that he thought no experiment would be conclusive until an uninjured animal could receive the poisoned blood from the one into which the poison was originally inserted. He suggested the performance of such an experiment to Mr. Blake. He also objected to the results arrived at by the hemadynamometer, an instrument which he considered open to sources of fallacy. He also inquired if Mr. Blake had found that poisons applied to an abraded surface, or put into the stomach, acted as quickly as when they were inserted directly into the circulation. After all, the differences observed in the action of poisons on different animals might be dependent on the difference of the susceptibility of the animals employed, it had never yet been shown that the poison in these experiments had reached the capillaries.

Mr. Blake, in reference to the statement of Dr. Addison, that if all poisons acted when they were applied to the brain, they ought all to produce their effects with equal rapidity, and that he, Dr. Addison, had never found the woorara to act in less than forty seconds; he could only remark, that in his researches and experiments which had been performed with all the more powerful poisons, he had found that all these agents acted with the same rapidity, there never being more than a difference of two or three seconds in their results; a difference which might be probably accounted for by a difference in the facility with which substances traversed the capillaries, and also by the symptoms produced by some poisons being much more strongly marked and much more seizable than those produced by others: this was particularly the case with strychnia. With regard to the opinion advanced by Dr. Addison, that the difference observed in the action of poisons might be owing to a difference in the susceptibility of the animals employed, it certainly was a very curious fact, should this be the case, that this susceptibilty was always exactly in relation with the rapidity of the circulation; but the facts brought forward in the paper before the society, and in former memoirs, rendered it quite impossible that the explanation brought forward by Dr. Addison could be correct; and, indeed, it was evidently unphilosophical to suppose, that when a poison could be shown to have arrived at the brain before it produced any symptoms of its action, that these symptoms should be owing to an impression made at a distance from the brain. With the opinion of Dr. Addison on the hemadynamometer he certainly could not agree, for he had found it to be an instrument furnishing the most accurate results. In reference to Dr. Addison's remarks, that the poison had not been shown to have entered the capillaries, Mr. Blake observed, that it was true that, in most instances, he had introduced the poison directly into the veins; yet he had in some very conclusive experiments with hydrocyanic acid, shown that poisons acted with equal facility when applied to unwounded surfaces; and this fact, taken in connection with the experiments which had proved that poisons acted only when taken into the blood, was sufficient, he thought, to set aside this objection; for it having been proved that poisons only acted when taken into the blood, it was evident that their action might be adduced as a proof of their having entered the circulation. With respect to the performance of experiments in which the circulation of two animals was attempted to be united, he did not agree with Dr. Addison in opinion. Indeed, in such an experiment the sources of fallacy would be such as to render the results altogether worthless. Thus, the animal into whose circulation the poison was inserted would become weaker than the other one; and instead of conveying blood to the sound animal, would, of course, receive that fluid into its own system, by which its life would be prolonged, and the effect of the poison interfered with.

Mr. Ancell begged, in addition to the argument employed by Mr. Blake in his paper on the Rapid Imbibition by the Tissues and Vessels, to remind the society of the facts determined by Tiedeman and Gmelin, that substances received into the alimentary canal were detected in the blood of the vena portæ or in the chyle. Also the discoveries of Orfila, of mineral substances taken as medicines and poisons, being obtained in their proper form from the organs and tissues upon which they had produced their effects. These facts, taken with the analogous effects produced by the injection of the same substances into the blood, constituted an irresistible chain of evidence in favour of the action of such substances, in the first place, upon the blood, and through the blood upon the tissues. It had been objected that frequently medicines and poisons could not be detected in the blood, as mercury for instance. But some experiments performed at Alfort seemed to show, that the failure was owing to the analysis being deferred too long. Many materials received into the blood were rapidly separated in the tissues, or eliminated by the organs, and accordingly they must be sought for quickly in order to be detected.

BRITISH MEDICAL ASSOCIATION.

Exeter Hall, June 15, 1841.

Dr. WEBSTER in the chair.

THE minutes of the last meeting were read and confirmed.

A letter from Dr. Bedingfield, of Stowmarket, was laid on the table.

The report of "the council of the North of England Medical Association" was laid on the table.

The following report of the deputation to Benjamin Hawes, Esq., M.P., was then read:—

"In pursuance of a resolution passed at the last meeting of the British Medical Association, R. Davidson, Esq., V.P., and C. H. Rogers Harrison, Esq., hon. secretary, waited, on Saturday, the 22nd ult., by appointment, on Benjamin Hawes, Esq., M.P., and report that the hon. gentleman at once conceded to the request of the deputation to withdraw his Bill from before Parliament, and for that purpose would take the first opportunity of stating this in the House. The hon. gentleman thought the above course politic, inasmuch as the state of parties was now so conflicting, that should the measure be pressed, it might be at once, and perhaps for a long time, irrevocably injured. The hon. gentleman, moreover, gave the deputation to understand, that he would not bring forward any Bill for medical reform; but throwing aside his own particular feelings, would, if in his power, support any measure for improvement in the medical profession which might be entrusted to him by the British Medical Association.

(Signed) "ROBERT DAVIDSON, V.P.
"C. H. ROGERS HARRISON,
Hon. Secretary."

On the motion of WILLIAM FARR, Esq., seconded by R. L. HOOPER, Esq., it was unanimously resolved, "That the above report be received and adopted."

On the motion of WILLIAM FARR, Esq., seconded by E. CRISP, Esq., it was unanimously resolved, "That as a general election is announced, it is highly important to press on the profession and upon candidates the following resolution, unanimously agreed to at the general meeting of this association on the 30th of March last, viz., 'That the members pledge themselves, and recommend to their professional brethren and to their friends, not to vote for any candidate at the ensuing election who will not support an efficient measure of medical reform.'"

On the motion of R. L. HOOPER, Esq., seconded by R. DAVIDSON, Esq., it was unanimously resolved, "That deputations be found to wait on the various candidates for the City and Metropolitan Boroughs, to confer with them on the subject of medical reform, and to inform them of the foregoing resolution."

On the motion of Dr. M. HALL, seconded by Dr. R. D. THOMSON, it was unanimously resolved, "That similar proceedings be recommended to the different associations in the provinces, and to professional men in the various counties, cities, and boroughs in the United Kingdom."

Resolved, "That the following deputations, with power to add to their number, be appointed to wait on the various candidates for the localities mentioned:—

Westminster—Mr. Davidson.
Marylebone—Mr. Simpson and Mr. Harrison.
Finsbury—Dr. Thomson and Mr. Farr.
City—Dr. Lynch and Messrs. Read's.
Southwark—Mr. Hooper, Mr. Evans, Mr. Howell, and Mr. Brady.
Lambeth—Mr. Crisp and Mr. Pon.
Tower Hamlets—Mr. Wallace and Mr. Bain.
Middlesex—Mr. Evans, &c.
Surrey—Dr. Webster, &c."

The meeting then adjourned.

MEDICAL CONFERENCE.

Exeter Hall, June 15.

Dr. GRANVILLE in the chair—Delegate from the Taunton Association.

Professor Sharpey—West of Scotland.
Dr. Marshall Hall—Nottingham.
Mr. Farr—Glasgow.
Dr. Webster, Mr. Davidson, and Dr. R. D. Thomson, secretary—British Medical.

Mr. DAVIDSON stated the particulars of an interview with which a deputation from the British Medical Association had been favoured by Mr. Hawes; from which it appeared that the hon. member for Lambeth had withdrawn his Bill from Parliament at the request of the association, and had expressed his willingness to continue his exertions in favour of the cause of medical reform in whatever way the profession should consider his services might benefit them.

The SECRETARY stated that it was in consequence of this circumstance that the present meeting had been called; and the subject for consideration by the delegates now was, the measures to be adopted for the furtherance of the cause of medical reform. He had written to the various delegates, and had obtained replies from all those who were non-resident in town. The first of these was from Mr. Rumsey, delegate from the Gloucestershire Medical Association, approving of a representative form of government for the profession, and suggesting several ameliorations of its present anomalous condition; at the same time tendering

his resignation, in consequence of his inability to attend the meetings of the conference.

The second communication was from Mr. Carter, of Newcastle, containing a brief summary of the proceedings of the North of England Association, and of the untiring and persevering exertions of that excellent association in the cause of reform.

It was then resolved, "That in consequence of Mr. Hawes having withdrawn his Bill, and the approach of a general election, it is expedient that an address should emanate from the conferences, calling upon their medical brethren to unite in electing those members as representatives in Parliament, who will give their consideration and support to medical reform."

The following address, it was then agreed, should be adopted, and rendered as public as possible, by insertion not only in the medical periodicals, but also in the daily and provincial papers. In the latter object it is hoped that the intentions of the conference may be facilitated, by the influence which individuals of the profession, and especially the secretaries and members of council of the Medical Associations, may possess with the provincial press:—

ADDRESS TO THE MEDICAL PROFESSION OF GREAT BRITAIN AND IRELAND.

The metropolitan and provincial delegates, in medical conference assembled, to their brethren in the profession, and especially to their fellow members of the several medical associations.

Gentlemen,—The time is at length arrived when, by a proper, judicious, and efficient exercise of their electoral privileges during the approaching struggle of parties, consequent on the dissolution of Parliament, the members of the medical profession may secure to themselves a just and legitimate influence in the great council of the nation, so as to attain the important object of *medical reform*, for which the different medical associations have been steadily and strenuously contending for several years.

The difficulties hitherto encountered in the accomplishment of that object have not so much depended on the opposition of interested parties, or the stand made against it by the corporate bodies, who strive to defend their respective monopolies, as upon the entire ignorance of the members of the Legislature on the subject of medical politics, and the existence of the many extraordinary anomalies, incongruities, and abuses which mark the present state of medical legislation in this country. Could but those who are called to sit in Parliament be enlightened on such subjects, the members of the medical profession, like those of every other influential body in the community, would soon find themselves respected by the Legislature, their rights to the support of Government acknowledged, and their dearest interests secured from farther inroad and usurpation.

Hitherto hardly a medical question has been proposed in Parliament, which has not been treated with indifference or neglect; hardly a medical interest of any public nature submitted to the House, which has not found a ready extinction at the hands of those who either through interest, misrepresentation, or from sheer personal ignorance of the matter under consideration, were induced to disregard the rights of the many for the claims of the few. This state of things must not endure; nor would it have existed so long, had the members of the Legislature been versed in medical politics. Let them but become enlightened in that respect, and the members of the medical profession may well leave to their shifts those who oppose medical reform, or aim at defeating it by the semblance of partial and paltry concessions.

The delegates to the Medical Conference assembled in London, who have been charged with the great trust of watching over the interests of the profession at large, deeply impressed with the force of these truths, and seeing in the approaching general election the very best and most effectual means of putting an end to the state of things to which they have alluded, and which they so much deprecate, call upon their medical brethren throughout the realm (for they have but one cause in England, Scotland, and Ireland), to attend, as they love their dearest interest, to the important resolution passed at the last half-yearly general meeting of the British Medical Association, by which it is declared that it is the duty of every member of those associations, as well as of the profession generally, of every rank or degree, to exert himself first in enlightening every candidate for a seat in Parliament, touching the necessities of the medical profession, and the want of a thorough reform of medical abuses; and, secondly, in exerting their interest, professional or otherwise, as well as by vote, so as to secure the return of such candidates only as shall promise to give consideration and support, in an earnest and efficient manner, to any Act of full and general medical reform which may be prepared and introduced into Parliament, with the sanction of the medical delegates from the metropolis and the provinces.

Without such exertion the reformers will have again to struggle in vain before a new Parliament for the attainment of their just wishes. *Now* or *never* must be their motto throughout the land. No body of men exercise a greater or more legitimate influence over the minds of those who stand in need of their aid than medical men, in the country their influence is unbounded. Let it, then, be exercised in the good cause; for the sake of the public, whose interest is the

interest of the profession, cast aside, brethren, for the moment, and for this once, all party bias, all political propensity, and at the approaching election keep only this one single consideration steadily in view—that none shall be invested by your help with the high and enviable privilege of enacting laws for Great Britain, but such as shall promise to embrace, among the many other important and mighty interests of the community, that of medical reform also, and apply his mind and energies to the best mode of conferring that one great boon on the medical profession, for which our labours began, and having which, our labours will end.

(Signed)

A. B. Granville, M.D., F.R.S.—Delegate from the Taunton Association, and Chairman.
W. Sharpey, M.D., F.R.S.—West of Scotland Association.
Marshall Hall, M.D., F.R.S.—Nottingham Association.
W. Farr—Glasgow Association.
G. Webster, M.D., R. Davidson, and R. D. Thomson, M.D., Secretary to the Conference—British Medical Association.

Exeter Hall, June 15, 1841.

MR. HALTON'S CASE OF SUBCLAVIAN ANEURISM.

To the Editor of THE LANCET.

SIR:—In your report of a case of subclavian aneurism, communicated to the Royal Medico-Chirurgical Society by Sir B. Brodie, in which a ligature was successfully applied by Mr. Halton at the Liverpool Infirmary, I beg to correct an error of the reporter. The author's name is reported Hulton instead of Halton. I may add, that the subject of the operation is now gate-porter at the hospital. I remain, Sir, your most obedient servant,

THOMAS BRANDE, House-Surgeon.

Liverpool Infirmary, June 9, 1841.

ARSENIC IN SULPHURIC ACID.

To the Editor of THE LANCET.

SIR:—I understand that large quantities of arsenic have been found in the sulphuric acid made by the new method of pyrites; in some cases as much as *thirty grains* in a pint of the acid.

As the danger from such a poison is undeniable, perhaps a few words from your able pen may serve as caution to those by whom it may be through inadvertence distributed. A. B.

London, June 3, 1841.

THE LANCET.

London, Saturday, June 19, 1841.

IN justice to the *Poor-law Commissioners*, we have to state that latterly, when appealed to, they have frequently refused to sanction the mean and oppressive acts of certain Boards of Guardians, who appear bent upon nothing but the reduction of the poor-rates, and the destruction of the unfortunate poor, by any lawful means in their power. Thus, Colonel A'COURT, the Assistant-Commissioner, advised the Guardians of the *Stockbridge Union* to acquiesce in the very reasonable request of the medical officers, to which we referred two weeks ago. And the Commissioners have since refused to sanction the appointment of a strange scapegrace, who had the bad judgment and inhumanity to offer to undertake to supply the poor of St. Columb with the mockery of medical relief, on the inadequate terms which had been unanimously rejected by eleven resident medical practitioners. The members of the *Cornwall Medical Association* did what the members of every association in the kingdom should do—they consulted each other as to the amount of salaries which "should be required for the medical offices of the Union;" and the Poor-law Commissioners not only expressed the opinion that the terms asked were reasonable, but strongly recommended the Guardians to accept them. For this conduct we give the Commissioners full credit, though they have done no more than discharge their duty. We never asked them, however, to do more, and only censured them when they did less.

The Poor-law Commissioners must not imagine that the correction of isolated cases of abuse arising under the present vicious system, is the only task which they have to perform. They reduced the remuneration to the present standard on the introduction of the new law. Their Assistant-Commissioners virtually *fixed* the salaries. Mr. GULSON,

Mr. Power, and other witnesses, admitted as much in their evidence before the Parliamentary Committee. In the Stockbridge Union, for instance, Colonel A'Court deprived the medical officers, in the first instance, of half their salaries. He is now directed simply to intimate his approval of a slight increase—are we to accept this paltry instalment?

Incontrovertible official returns prove that, at the present rates of remuneration, the poor cannot be supplied with unadulterated medicines, much less with the skill, care, and watchful attendance which their manifold diseases demand. If we prove that the Poor-law Commissioners, not satisfied with the evils of the old system, aggravated them, and led the Guardians, by their reports and authority, into the errors of which medical practitioners so justly complain, a case will be made out for their active interference. Now, it is as clear as the sun at noon-day, that if the Poor-law Commission had never been created, and the medical relief of the poor had been left entirely to the local authorities, half the errors and evils of which we complain would never have existed. This is a heavy charge; but it is too well borne out by the Reports of the Commissioners themselves. We take their First Report (1835). The Commissioners tell the Secretary of State, that in "the great majority of instances" the medical man contracted with the parish for the supply, to the settled paupers of the parish, of medical attendance "*for "a small fixed sum, on the expressed or implied condition, that he should be allowed to "make whatever charges he pleased* for his "attendance and treatment of non-parishioners, under suspended orders of removal, "or an order of medical relief by the overseer. When the patient had recovered, he "was sent home to a parish with a bill for "medical attendance, including *charges for "medicines at the highest rates. The pauper "was exposed to the* DANGER *of being supplied "with medicines considerably beyond what "was required for his proper treatment.*" Instances had come to their knowledge where, in large populous parishes, the profits of attendance upon paupers, under such circumstances, had been upwards of 300*l.* per annum. "The inferior officers had been "*fee'd by the medical officer* to search out and "give him information of the cases of this "description."

Such is the case that the Poor-law Commissioners made out against the old system of medical relief. We quite agree with them that the mode of remuneration was highly objectionable; but the evil and the remedy had been pointed out by Mr. Leslie, before the Poor-law Commission was in existence. The overseers fraudulently refused to pay their own medical officer an adequate fixed salary; and attempted to throw the burthen on other parishes, by inducing him to charge the ordinary fees of private practice for attendance on non-parishioners. After all, the Poor-law Commissioners must admit that, taking the average of the country throughout, the rate of remuneration was under the old law insufficient, and much below the amount which has been proved in evidence to be fair and reasonable. It is worthy of remark, too, that though the Commissioners were alive to the *danger* the pauper was in of getting *too much physic* under the old system, when the remuneration was regulated as in private practice, they were blind to the possibility of his getting no proper advice or medicine at all under the fatal system which they introduced.

The proper course for the Commissioners to have pursued was obvious. They should have ascertained by statistical inquiries at hospitals, dispensaries, and other public institutions—from the heads of the army and the navy, and from practical men in the profession, the expense of medical appliances; and have fixed on a rate of remuneration high enough to cover this expenditure, and to reward the Union medical officer, in some degree, for his arduous and useful labours. Instead of this they jumped to the foregone conclusion, that all they had to do was to reduce the expense of medical relief, cost what it may in life or suffering. "As a *check*,"

they said, "to this system, *and to the general* "*expense of medical relief*, WE *have generally* "*required that medical services should be* "*retained by* CONTRACT AND OPEN TENDER, "including as a condition that the medical "officers should attend, at the same charge, "all patients, on the order of the overseer, "whether the patients were parishioners or "non-parishioners."

Their sophistical observations on the applicability of tender require no refutation. The tender system, and their whole scheme of Dutch auction, they must admit, is only applicable in trade, where the quality and value of the article supplied can be *readily ascertained*.

The Commissioners who, it would seem, considered that they were themselves employed, as well as paid, by the landlords of the country—that they had the poor in their grasp, and that they could only secure a firm hold of office by reducing the rates, were not satisfied with the simple results of "open tender."

"We have found it necessary, *as a secu-* "*rity against undue charges*, EVEN UNDER "COMPETITION, *to adopt as a rule that the* "*aggregate charges for medical relief* within "the new Unions, *shall not exceed* the ag- "gregate of the former expenditure for "medical relief in the separate parishes now "included in the Unions. Instances have "occurred where the local medical practi- "tioners have combined to prevent a compe- "tition. The course taken in these instances "for the protection of the rate-payers, and to "secure the best treatment to the paupers (!!) "*has been to suspend our sanction to the ap-* "*pointments, and to cause* ADVERTISEMENTS *to* "*be made to throw open the office to the com-* "*petition of practitioners* FROM A DISTANCE, or "of the profession at large." In other words, without knowing anything of the matter, as they subsequently admitted, and in the absence of any fair standard of remuneration, they brought all the weight of a Government Commission to bear on the devoted heads of local practitioners, who, with a just regard to the interests of the poor and the dignity of the medical profession, spurned the "open tender" system, and amicably agreed among themselves to attend the poor for salaries which they knew from experience were moderate. The *Wards*, *Meyricks*, and *Sheriffs*, were held *in terrorem* over the established practitioners of the kingdom; and by this means the rate of remuneration was brought to the present low ebb, at which the Commissioners must be convinced the poor are in "many instances" deprived of real medical relief, and swindled out of existence by advertised adventurers.

In some Unions the Commissioners provided that the terms of the contract should be a remuneration at a given sum per head, on the number who received medical relief, *with a proviso, that the gross charge should not exceed a given amount*. They affirmed that this mode of proceeding, though adopted reluctantly by the medical profession, had *operated very beneficially*, on evidence like the following (which they quote), by the simple-hearted surgeon of the Amersham Union:

"*I approve of the system;* but the amount in the present contract is inadequate. *I think I shall lose a guinea a-week by it.* In some of the parishes it is at present only *one-third of what I have received in former years for the same time.*"

The surgeon of the Amersham Union may have had excellent reasons for approving of "the system;" but we suspect that in the hands of the Commissioners' advertised candidates the poor have been deprived in similar cases of "medicines or attendance to the amount of a guinea (or more) a-week;" that the loss has fallen on the victims of the law, and not on the pocket of the "open tenderer." At any rate, there was a great risk of this; and the danger of a run on coloured water, to save bark, opium, leeches, time, and horseflesh.

The poor were glad to escape at any cost from the Union doctors, wherever the nefarious system was introduced, in all its rigours. The Commissioners had a trap for them in the "independent medical clubs." Mr. GULSON stated in a report from Oxfordshire, "Medical clubs are springing up in all di-

"rections. The *proceedings of the board* have "already been productive of the best results. "Highly-respectable medical men are under- "taking *to attend all cases for an annual sub-* "*scription of two* SHILLINGS *for a single person;* "*and for* 4*s.* 4*d.* (about 10*d.* a-case) *they* "*engage to attend a whole family, however* "*large,* so that it does not include children "above sixteen years of age."

These were the first acts of the Poor-law Commissioners; and this was the sort of stuff with which they thought fit to entertain the Secretary of State in their First Report.

At another time we shall pursue this subject further; but the passages which we have quoted, and all their reports, prove to demonstration, that the Commissioners acted in the first instance with the utmost rashness; that they sedulously misled the Guardians of Unions all over the kingdom through the agency of their Assistant-Commissioners; and that the present system is calculated both to annoy and injure the medical profession, by making it the interest of the medical officers and Guardians of Unions to provide inadequate relief for the sick poor of England.

Are the Commissioners prepared to take immediate steps to introduce the amended system of medical relief, sanctioned by the Committee of the House of Commons?

MEDICAL REFORM.

To the Editor of THE LANCET.

SIR:—Let me earnestly entreat the members of our profession, at the present important crisis, to use all their influence for the return of candidates who will support medical reform. I feel assured that if this plan be pursued by the majority of medical practitioners, that the present state of apathy and indifference to medical affairs amongst members of the House of Commons will, in a great measure, be removed. Let us lay aside all party feeling, and whether we be Whigs, Tories, or Radicals, give our suffrages to those only who will promise to rescue the profession from its present state of degradation. I am, Sir, your obedient servant, A REFORMER.

June 14, 1841.

The Sanative Influence of Climate; with an Account of the best Places of Resort for Invalids in England, the North of Europe, &c. By Sir JAMES CLARK, Bart., M.D., F.R.S. Third Edition. Murray.

To value this work as it deserves, demands one of three conditions; firstly, to be oneself an invalid, ardently wishing for health, and seeking the best information on the advantages to be derived from climate and circumstance; secondly, to be the relative of one in the above situation, and desiring to preserve a life, probably more dear to us than our own; or, thirdly, to be in the position of the medical practitioner, entrusted with a valuable life, seeing that life in danger, and called upon by conscience and duty to advise the trial of "change of air." Could we suppose the medical man wholly unaware, excepting by hearsay, of the merits of the various places so frequently resorted to by invalids in the hope of cure, we could well imagine his joy and delight at finding such a work as that before us placed in his hands. We need hardly observe, that to every medical practitioner likely, in the course of his life, to be placed in such painful circumstances, Dr. Clark's work must be inestimable. Indeed, the volume should occupy a place in every library, however humble, and be looked upon by the student and practitioner as one of the most important of his "armamenta medici." It is not the duty of one alone to decide in such a matter upon that which may be productive of life or death to a fellow-creature, but of all; all, therefore, should provide themselves with that information which is calculated to direct their judgment with the best chance of a successful result. Sir James Clark's work has already been before the profession for some years, and that it has received the attention which it deserves may be inferred from the call at present made for a third edition. In the present edition, writes the author, "this work has been almost entirely rewritten, and whatever appeared not directly to the purpose has been omitted, in order to make room for the consideration of several new subjects, and the introduction of notices of some places not previously described."

That the volume has been productive to a very considerable extent of the good which the author proposed to himself in the preface to his first edition, we make no doubt;

but the importance of that good impresses itself so forcibly on our minds, that we deem it right to make an extract of the passage:—

"I do at least anticipate the good effect from my labours—that, for the future, those patients only will be sent abroad whose cases afford a reasonable prospect of benefit from such a measure; and that the practice of hurrying out of their own country a class of invalids whose suffering can only be thereby increased and their lives shortened, will no longer be sanctioned, but that such persons may be allowed, henceforth, to die in peace in the bosom of their own families."

As the great mass of the diseases under which those suffer who are impelled to resort to change of place and climate as a means of relief, are of the same class, viz., disorders of the digestive or of the respiratory apparatus. The author occupies the first portion of his work with a brief sketch of their nature, and of the relative applicability of climate to their cure; these he considers under the respective titles of Disorders of the Digestive Organs; Pulmonary Consumption; Diseases of the Larynx, Trachea, and Bronchi; Chronic Rheumatism; Delicacy in Childhood and Youth; Climacteric Disease; and Disordered Health from various causes.

The second part is occupied with the subject of climates, commencing with those of England, and proceeding in succession to the climate of France; the climate of Nice; the climate of Italy; the climate of Malta: remarks on summer residence on the continent; the Atlantic climate, including Madeira; the Canaries; the Azores; Bermuda; Bahamas; and the West Indies.

In an appendix, the climates of the southern hemisphere of Australia and of New Zealand are treated of; in a second appendix, the applicability of mineral waters, natural and factitious to chronic diseases; and in a third, are collected a series of valuable tables on temperature and climate.

Of one of the climates of Britain, viz., of Cove, Sir James Clark observes:—

"Cove appears to be one of the mildest climates in Great Britain; being inferior in point of temperature to Penzance only, during the winter months, and to the same place and Torquay only during the spring. In point of dryness, Cove does not stand so high in the table of comparison. The winter is comparatively with the other places, the season during which the greatest quantity of rain falls.

"In its general characters of climate and the influence of this on disease, Cove corresponds with the south-west of England and other similar climates."

In concluding our necessarily brief notice of this work, we again recommend it most strenuously to the perusal and study of our readers.

MODE OF OBTAINING THE MEDICAL DIPLOMA OF THE ERLANGEN UNIVERSITY.

To the Editor of THE LANCET.

SIR:—Many allusions have lately been made in the medical periodicals to the diplomas of foreign universities, and as the statements have generally been vague and erroneous, I beg leave to lay before you some correct information on the subject; I do not know what are the regulations of the different continental universities, but being a graduate of the university of Erlangen, I am in possession of the rules that are there observed. Any British medical man who has testimonials of having passed through a regular course of medical education, and of being of good moral character, may be examined, and, if approved, will receive the diploma.

Personal attendance is required, unless the candidate be legally authorised to practise in Britain or Ireland, and has been in practice as such for ten years; but not then, unless he satisfy the Dean of the Faculty that he is prevented from appearing personally, by private practice or public duties: in such cases testimonials must be sent, well authenticated, and also a medical thesis; and he must answer such questions as they may send to him, and testify, under his hand and seal, that the thesis and answers were written by himself, and by himself alone. The above are the chief rules. There are several other rules, which prevent unqualified persons from being received as candidates; in fact, none but well-qualified persons can obtain the diploma, excepting by fraudulent means; and such persons cannot show the diploma without being detected, for the qualifications are recited in the diploma, as well as the title of the thesis. It is not a mere formal document, but a specific one, conferred for qualifications which are distinctly stated. The expense is about 25*l.* altogether, 21*l.* the diploma and fees, besides postage, carriage of the diploma, &c. A person applying for such degree will not be able to procure it under about three months. The application is in the first instance to be made (post-paid to the fron-

tier) to the Dean of the Faculty of Medicine in the university of Erlangen, Bavaria, who will give all the requisite information. The diploma is all printed, in a very superior manner, on drawing-paper. I have sent you a copy of one, which you may use as you think proper. I am, Sir, your obedient servant,

M. D. Erlangensis.

London, June 1, 1841.

Copy of the Diploma.

Qvod Felix Favstvmqve esse ivbeat Devs ter optimvs Maximvs
Svb avspiciis
Avgvstissimi et potentissimi Regis et Domini Domini
LVDOVICI
Regis Bavariae
Regis et Domini nostri longe Clementissimi ex decreto gratiosi medicorvm ordinis in Academia Regia Friderico-Alexandria Erlangensi
ex-prorectore magnifico
viro svmme venerabili
D. Io. Geo. Vito Engelhardt
Regi Bavariae potentissimo ab ecclesiae consiliis theologiae professore pvblico ordinario seminarii theologici directore eqvite ordinis S. Michaelis
viro praenobilissimo atqve experientissimo

Anglo
Regii Chirvrgorvm Colegii Londinensis socio antea chirvrgo militari medico practico per triginta annos optime probato nec non de rebvs medicis avctori bene noto exhibita dissertatione inavgvrali
de febre
Doctoris Medicinae
gradvm ivra et privilegia
die III. M. Novembris MDCCCXL
rite contvlit
D. Ioannes Evgenivs Rosshirt
Artis Obstetriciae Professor Pvblicvs Ordinarivs nec non Institvti Obstetricii Director Societatis Physico-Medicae Erlangensis Sodalis
ordinis medici H. T. decanvs et promotor ad hvnc actvm legitime constitvtvs
qvod ita factvm esse solemne hoc diploma sigillis maioribvs et regiae literarvm vniversitatis et ordinis medici nec non ordinis eivsdem decani assessorvmque porro prorectoris magnifici et vniversitatis secretarii avtographis mvnitvm testatvr.

SIR C. SCUDAMORE'S TREATMENT OF CONSUMPTION BY IODINE INHALATION.

To the Editor of The Lancet.

Sir:—In your Journal of last Saturday, I read, with much surprise, some remarks appended to my answer to "An Old Subscriber," as uncourteous, unrefined, and unjust, as an unfriendly pen could express. Perhaps I ought to pass them over in silent contempt; but I will offer the following explanation:—My convenience has been so seriously interfered with of late by the number of letters on the subject of inhalation which I have received, asking for information, that I thought it proper to make reference to my book; and, the more especially, as several of my correspondents have put this question, "What have you published on this subject, and where is the book to be procured?"

The unreserved manner in which I have communicated the results of my experience in the treatment of consumption in your own Journal at different times, in the "Medical Gazette," Feb. 3, 1840, and in the book alluded to, should protect me from all suspicion of concealment, or of selfish conduct. You speak of a "recipé" as if the treatment of phthisis and chronic bronchitis consisted of doing one thing only. I recommend inhalation as forming a part of a system of treatment, but certainly a very important part; yet, in order to produce its good effects, the doses and the combinations of the several ingredients are always to be considered. The following is the formula of the iodine solution which I prescribe:—

℞ *Iodine;*
Iodide of potassium, of each, gr. vj.
Distilled water, ℥v ℥vj;
Alcohol, ℥j. Mix together, and use by inhalation.

I usually commence with a drachm of this mixture, proceeding gradually to the extent of half an ounce (rarely more), putting two-thirds the dose for the first half of the time (10, 15, or 20 minutes), and the other third for the remainder, always adding thirty minims of a saturated tincture of conium, with an increase if the cough be very irritable. Occasionally I add some saturated tincture of ipecacuanha; and when the respiration is spasmodically affected, some ætherial tincture of the lobelia inflata. All this information, and a great deal more, I have before communicated.

I can truly declare that it is my earnest wish and constant study not only to increase my own information on the pathology and treatment of consumption, but, also, on all occasions to impart every information which I might hope to be useful and interesting to the whole profession.

I am happy to state that the young gentleman whose case I described in The Lancet, May 8, and whom I attended in consultation with Mr. Norton, of Dorset-street, is entirely recovered. I have also recently been gratified with the almost restoration to health of a young man whose symptoms were of the most aggravated description; together with pectoriloquism unequivocally indicating a cavity, there were the most harass-

ing cough; foul puriform expectoration; very hurried respiration on the least exertion; rapid pulse; profuse night sweats; loss of sleep, sometimes for the whole night; great emaciation and excessive debility. In the first instance I quite despaired of the case. I can give the reference to the individual to any one who desires to have a proper curiosity satisfied. I am, Sir, your humble servant,

CHARLES SCUDAMORE.

Wimpole-street, June 14, 1841.

P.S.—It is of great importance that the glass inhaler should be well fitted with capacious tubes, and that all the ingredients employed should be perfectly pure.

SIR C. SCUDAMORE'S PANACEA.—NEURALGIA OF THE RECTUM.

To the Editor of THE LANCET.

SIR:—An Old Subscriber requests the favour of Sir Charles Scudamore to communicate the mode by which inhalation is practised in his Lung Hospital, but as he has not thought fit to be so obliging, perhaps the Old Subscriber will accept of it second-hand; for after all it is but a second-hand affair, I myself having ordered the same remedy, as far back as 1830, on the person of a Mr. Wagstaf, in Copland-street.

Take a solution of iodine made with iodide of potassium, mixed with extract of conium; a little of this mixture is to be put into warm water and inhale. That's the panacea of Dr. Scudamore.

As I am in the mood of being obliging, I shall take a grievous burden off the mind of Mr. Hird, who brought forward a case of painful neuralgic affection of the rectum before the members of the Medical Society, where he divided the sphincter, and lays claim as being the first in the field in England in doing so for that painful disease. Now, I will show him that his also is a second-hand affair. In the year of our Lord, 1838, a certain Sir James Sutherland was afflicted with an awful neuralgic affection of the rectum; so intense was the pain, that I have seen him frequently rolling in agony on the floor, and tearing with his teeth the carpet; he had the advice of vast numbers of the *élite* of the profession. Leeches, narcotics, tonics, cold hip-baths, arsenic, copper, zinc, and ultimately despair. I was amused once upon a time when Surgeon Salmon, of rectum notoriety, after thrusting his indicator digit up, of course he brought it down again, held it up to my gaze smeared with mucus and blood, and in a decided, determined, and final manner stated; that scirrhus had taken possession in entail, however, as I have a touch as well as he, I was not satisfied with his decision, and I then called upon Mr. Liston who saw my patient, and after being made acquainted with the necessity of an operation, he consented; the sphincter was cleverly divided, and, with the knife, recut the disease. Not a single pain has my patient had since; he enjoys excellent health, has complete control of the sphincter, and has increased in bulk, strength, and good looks,—far different from the careworn and debilitated appearance he presented previous to the operation. Such is a satisfactory account of this case, which, your readers will perceive, was done and perfected in 1838; of course that is before Mr. Hird: whether there have been any before my case, I have not the means to inform you. Allow me to subscribe myself, Sir, your humble servant,

JOHN GRAY.

7, Upper George-street, Bryanston-square, June 9, 1841.

SIR C. SCUDAMORE'S PANACEA.

To the Editor of THE LANCET.

SIR:—I am surprised to see in THE LANCET of this day, that Sir C. Scudamore refers to his book for information as to the dose and method of mixing the iodine and conium for inhalation. I have had the work ever since its publication, and could never discover any information on these points; I shall, therefore, be much obliged if Sir C. Scudamore will point out the page or pages wherein it is to be found. I remain, Sir, your obedient servant,

ANTI-HUMBUG.

*** The method is said to be described in the "second edition."

UNION OF MEDICINE AND TRADE.

To the Editor of THE LANCET.

SIR:—Having, through your pages, become partially acquainted with the proceedings of the British Medical Association, I determined last week upon attending its half-yearly meeting, with the view of becoming as well acquainted as possible with its principles.

My impression of the meeting was decidedly favourable. A tone of kind moderation prevailed throughout; which was only a little exceeded, perhaps, when Dr. Granville told us of a reply which he had on some occasion received from Sir Henry Halford, wherein the worthy baronet had asserted that "midwifery was an occupation degrading to a gentleman." The expression may have been a little strong, but I prefer saying less than more than the truth. The president is a good criterion of the general sense and judgment of his electors. The principles of reform laid down in their reso-

lutions are, undoubtedly, judicious, but I experienced infinite disappointment in finding that the principle of separating medical practice from the retailing of drugs was not embodied amongst them. This is the more to be wondered at, as the subject, whenever introduced, which it was several times in the course of the evening, was received with loud approbation. So far, too, as I could understand, it was not proposed in any Bill which the association might prepare to prohibit such a hybrid traffic. Now this, surely, is a vital omission; for I contend that the most important and valuable change in our profession, would be that which should obtain for us the greatest amount of public respect, and elevate us in our own opinion. To the sensitive and honourable minds of medical men, it is of the highest interest to pass through life with a just pride in their occupation, and a capability of holding themselves upon a level with any other profession; and surely, whilst every voice is loud in the outcry against the chemist for trenching on our rights, it should not be forgotten that he has just as fair a claim for complaint. Not even do we confine ourselves to supplanting him in his business, but occasionally tack his designation on to our own. I could name to you a fellow-student of my own, who is a member of the hall, a member of the college, a graduate of Edinburgh, and, *also, a chemist.*" So, at least, certain gold letters announce, which do or did rest above his door; and he can at the same time accommodate you with a hair or a tooth-brush to adonise your outward man. Now, this is to discredit an honourable calling; but the ready answer is, "I must live at any cost." This brings us to the root of the evil, viz., the glutted state of the profession; the consequence of proud and anxious parents desiring to make their sons gentlemen, by thrusting him, *nolens volens*, into physic, with a very ambiguous claim, indeed, to the honour, whence the unhappy, misplaced individual, who would have been perfectly content in a much humbler station, is either never aware of, or rapidly forgets the rank he has been intended to assume, and so sinks to the general level of the surrounding traders. I remain, Sir, yours obediently,

ALPHA.

April 8, 1841.

*** Our correspondent deceives himself by expecting that any Parliamentary law ever will be passed in this country to render it penal for a surgeon or an M.D. to sell combs or tooth-brushes. Some other species of law must operate against that offence. How should we laugh at an *Act of Parliament* to prevent dukes and right honourables from becoming old-clothesmen or pastry-cooks.

UNION SURGEONS.

To the Editor of THE LANCET.

SIR:—If the following lines are likely to do any good to the gentlemen to whom they apply, I hope, as you are a strenuous supporter of the honour of the profession, you will give them publicity.

Miserable as the whole working of the poor-law is, no part of it is so superlatively odious as the medical contract system; that young men will be found, anxious to undertake the onerous duties of a large union at an unremunerating rate, is not to be wondered at, when we consider the immense field for experiment which they thereby acquire. But it is much to be deplored, that any man, with a licence from a legal body, can be found to obey that part of some advertisements which have appeared of late for union surgeons, requesting the applicant to attend personally with his diploma and testimonials.

What, in the name of wonder, can the mighty guardians want with a sight of the tender contractors? Are they afraid of unwittingly electing a gentleman whose coat gives fearful evidence of its intention to be no longer useful? Or are they physiognomists, anxious to pick up the man who has the most diabolical countenance, one on whom they can depend, as a stern supporter of their victimising dietary and non-relief edicts? I can picture to myself some half-dozen Shakspearean apothecaries wending their way, parchment in hand, to the august presence of the awe-inspiring guardians; having arrived at the sanctum sanctorum, there they sit, with dull melancholy in their looks, till the name (of one more unfortunate than the others) is announced as chosen to the honourable situation of parish surgeon. If the contract system is to continue, surely those gentlemen who want such appointments could send their diplomas and certificates; but however odious the guardians wish to make medical men, let no surgeon act so basely to himself and the profession as to wait at the hall of audience of the grinders of the poor. Your obedient servant,

ADELPHOS.

May 31, 1841.

CHEMISTS AND DRUGGISTS.

To the Editor of THE LANCET.

SIR:—It is with reluctance I ask again for a small portion of your valuable space, but common justice to ourselves necessitates me to do so, and I think you will not deem my demand unreasonable.

I am sorry to perceive there is an evident intention, on the part of the surgeon-apothecary, to run the chemist and druggist down, and to depreciate him in the public estima-

tion, by any means, fair or foul. I am convinced such a course will receive no countenance from you, for though ardently desirous of medical reform, you are a lover of fair play, and I would disdain to use your powerful resources to elevate one branch by undue and unjust reproaches towards the other. No one knows better than you, that there is plenty of room for improvement in both.

My present object in addressing you, is to contradict an assertion made by Dr. Webster, at the Medical Association, that the chemists are inimical to medical reform. Upon what ground does Dr. Webster thus misrepresent us? Is it because we were opposed to an absurd clause in Mr. Hawes's Bill, that restricted us from recommending a piece of sticking plaster?

The chemists are most desirous of medical reform: they show that, not in attacking others, but by endeavouring to reform themselves, as witness their efforts to establish a pharmaceutical society, they wish to see so elevated a standard of education adopted in each branch of the medical profession, as would ensure and obtain men who know their business thoroughly.

Disapproving of the length to which some chemists carry their privileges, I was amused at an imaginary dialogue between "Medicus" and "Chymicus" in THE LANCET of April 10th, sent by "Medicus," with the view of attacking the prescribing chemist.

"Medicus" made it appear that out of twenty cases brought to "Chymicus," "Chymicus" murdered one, and cured nineteen. Now this, I think, is a very successful average. I doubt if "Medicus" could present so good an one. I remain, Sir, yours very respectfully,

A CHEMIST AND DRUGGIST.

May 4, 1841.

*** Such a serious charge, as our correspondent will see we have removed from his letter, must not be made by an anonymous writer.

VINDICATION OF DRUGGISTS.

To the Editor of THE LANCET.

SIR:—I am a druggist in Manchester, and, as a subscriber to your Journal, it has lately given me pain to read therein several letters containing attacks against druggists as a body for the alleged incompetency or dishonesty of individual members of that town.

There is, in your Number of June 5th, a writer named Edward Florance, who confidently puts forth statements so serious that if I could persuade myself that they are true, I should, indeed, be ashamed of my calling; but I trust, sir, that they are not correct representations of the manner in which the drug trade is conducted in this country. There are peculiar diagnoses in the cases which he describes, that convince me that they are spurious. For instance, Mr. F. would find it difficult to describe the mass which, by the addition of "the chief virtue in the camphor," would require an hour to make up. It is strange, too, that the public who "always" request Mr. F. to personally superintend the making-up of their medicines, should afterwards take them to a druggist to have them made up by "guess work."

In the "lin. camph. com." case, too, it seems strange that "several complaints" should have been made to Mr. F., and yet it does not appear that he had asked to look at the liniment, or had applied to the druggist; the druggist opens the conference, and, apparently, after having made up the compound for the first time. The evidence which Mr. F. adduces that his juvenile dose was "strong enough for a horse," viz., the fact that it contained half an ounce of antimonial wine, is certainly unanswerable.

I am not, sir, disposed to deny that Mr. Florance must have "undergone severe studies" to enable him to compose a letter so remarkable for elegance of diction and grammatical accuracy as the one in question, but I would submit to him that the public of whom he speaks, would be able to place a more just value upon his observations, if they were informed of the locality from which he has drawn them; his epistle neither states his abode nor contains a date, it is, therefore, little better than anonymous. Probably Mr. F. forgot that his letter would be read where his name was unknown. I am, Sir, your obedient servant,

ONE OF THE ACCUSED.

Manchester, June 11, 1841.

RECOGNITION OF LECTURERS.

To the Editor of THE LANCET.

SIR:—I beg leave respectfully to call your attention to the following facts:—

A Student of St. George's Hospital presented himself last week at the hall for his examination, but was civilly informed that his lectures were not complete, Dr. Nairne not being recognised as a lecturer on medical jurisprudence. Now, not to mention the immense inconvenience and disappointment it must have been to the student in question, is it fair that men should profess themselves as lecturers, without the recognition of the bodies before whom their certificates are to be laid? Dr. Nairne in reply says, "I belong to a higher rank in the profession than the court of examiners at the hall!!" A STUDENT OF ST. GEORGE'S.

QUACKERY.

To the Editor of THE LANCET.

SIR:—The *Times* of Friday last contained an advertisement headed "Glandular Institution," consisting of a public notice that Sir Charles Aldis, of Old Burlington-street, cures cancer, scrofula, &c. without the knife, and syphilis without mercury; and that Sir Charles was at home daily from 10 till 1, and from 3 till 5. After this, what objection can there be to our seeing Old Burlington-street and its environs paraded by a troop of boardmen and bill-distributers, with placards decorated with delineations of cancerous breasts, scrofulous ulcerations, and syphilitic sores? We despise the Morisons, the Holloways, the Eadys, the Gosses, and others of the like, who do not live in Burlington-street; but well may they turn upon us and say, "What do we more than you?" Sir Charles Aldis must be a member of the profession, as I have seen his name amongst the list of those who frequent the levees of the Queen, introduced by Sir Henry Halford. I remain, Sir, your obedient servant,

May 18, 1841. *Μαχαων.*

ACETIC ACID IN HEADACH.

To the Editor of THE LANCET.

SIR:—Some years since I was induced to suppose that acetic acid, if properly administered, would prove an efficient remedy for common headach; and on making a trial of it in a severe case, which had previously existed many hours, it succeeded completely in a very short time. I have since had many opportunities of trying it in nervous headach; that arising from disordered stomach; headach following sea-sickness; and the too liberal use of wine. In almost every case in which I have employed it, complete relief has been the result; and that generally in less than two hours, and after three or four draughts.

In those cases in which the stomach is incommoded by offensive matter, it should be evacuated previously to the exhibition of the medicine. I have found that irritating the fauces has answered the purpose much better than giving emetics: in the greater number of cases, however, it will only be necessary to commence by giving

℞ *Acetic acid*, ʒj;
Compound tincture of cardamoms;
Simple syrup; of each, ℥ss;
Water, ʒx. To be taken every twenty minutes, in the form of draught. One of the above draughts given early on the approach of an attack of headach, has often effectually warded it off. Your obedient servant, ROBERT HOWARD.

41 C, Park-street, Grosvenor-square,
June 1, 1841.

CLINICAL PROFESSOR AND PHYSICIAN AT UNIVERSITY COLLEGE HOSPITAL.—On Saturday, May 22, Dr. JOHN TAYLOR was appointed to the recently-instituted chair of clinical medicine, in University College, and to the office of physician to the hospital, vacant by the resignation of Dr. Carswell. "To all who know Dr. Taylor," says a correspondent, "and are well-wishers of University College, this appointment must give unmixed satisfaction, as, from the unwearied zeal with which he has pursued his profession, and the talents he possesses, he cannot fail of adding, in his new capacity, to the utility of the school to which he is attached. Dr. Taylor is the first student of University College who has been appointed to a professorship in that institution." It would be well if the same amount of judgment as has been exercised in the selection on this occasion, distinguished the appointments generally at the college and hospital.

TO CORRESPONDENTS.

URINOMETER. — A correspondent inquires, Where he could obtain a published description of this instrument, with the name of its inventor? Perhaps one of our readers would favour him with this information.

K. Z.—It is not necessary; but he must not practise as an apothecary, for gain.

W. H. D.—The verses and remarks were received, but were not calculated for a place amongst medical communications.

The case of *T. E.* is one in which such advice as he desires would be useless. The propriety of his attending the hospital at all may be doubted. Has he not made a mistake in his choice of a profession? At any rate he is beginning at the wrong end, and a few lines in this place cannot set him right.

Communications have been received from *Dr. Cory; One of the robbed; Mr. Drummond; Dr. Hocken; Mr. Barlow; Mr. Peppercorne.*

Dr. Deakin's communication has been received.

The *M.R.C.S.* and *L.A.C.* who inquires concerning the mode of obtaining degrees from the German universities, will find a reply to his questions in the letter signed "Erlangensis" in the present number of our Journal.

W. M. shall receive our answer next week.

Mr. Hunt's communication is unavoidably postponed this week from want of space.